MACROS AND USER COMMANDS

Introduction

The following chapter documents the basic functions of the current programs known as Microstation Macros and User Commands. Macros and User commands are programming languages specific to Microstation.

User Commands (.ucm) files are ASCII files that contain instructions that perform as series of task. User commands are no longer fully supported by Bentley Microstation. The full functionality of the language no longer works as orginally design. Many of the items that could be done with user commands are no longer valid. Although the more simple task they performed still continue to function. Some of Roadway Design's programs are still in the .ucm format and will remain until that way until they no longer function or can be replaced with a newer language. User commands do not require any program compliers and are read by Microstation in their original ASCII format by entering the key in command (uc=<ucmName>.

Macros are another special Microstation programming language that can be similarly compared to a BASIC programming language. Most of the Macro language is still supported by Microstation, although Bentley recommends that Macros be replaced with the latest VBA programming language. Roadway converted most of their User Commands to the Macro language and still continues to use a large number of custom Macros. Macros start out as source code written in an ASCII file (.bas) and then is compiled when it is activated in Microstation to create a (.ba) file. The (.ba) compiled file, can be ran in Microstation without the presence of the source file (.bas), but the .ba file is a binary file which cannot be modified. Therefore providing the author a way to protect or secure it from being modified. Currently Roadway does not provide the source files with the delivered data set.

Most of these programs are called from custom Menus that Roadway Design provides in its delivered interface. The following show the general location the programs are called from and includes the program name and information about the function of the program.

Running Macros and User Commands Manually

All the macros and user commands listed in this document can be executed from within Microstation with a key in.

Macros

Key In: macro <macro_name>

Where <macro_name> is the *name* of the basic macro as listed in this document. It is not necessary to put the .ba extension on the name, because Microstation will automatically look for the .ba file.

The macro must have the full directory path listed with the name unless you have assigned the variable ??? to equal the directory where you have placed the macro files. The workspace used by Roadway design currently points this variable to our group directory.

User Commands

Key In: uc=<user_command_name>

Where <user_command_name> is the *name* of the command as listed in this document. It is not necessary to put the .ucm extension on the name, because Microstation will automatically look for the .ucm file.

The user command must have the full directory path listed with the name unless you have assigned the variable MS_UCM to equal the directory where you have placed the files. The workspaces used by Roadway Design currently points this variable to our group directory.

DZINE MENU

You can used the links below to quickly locate a programs location on the menu.

Some commands are activated manually. To see a description of these commands and other miscellaneous command go to the subject: **Other**

Subroutines

Some commands are called by other commands and are not located on the menu. These are called: **Subroutine Commands.**

If you see an option missing above it is because there is no program used under that option on our menu.

MACRO AND USER COMMAND DOCUMENTATION

EXISTING >

EXISTING > TRANSPORTATION FEATURES > X-TRANS

NAME: XEP.BA
TITLE: DRAW EXISTING EDGES OF PAVEMENT
Description
Sets the parameters to draw existing edges of pavement. The user needs to use the standard Microstation commands to draw the edges of pavement.

NAME: PXEP.BA
TITLE: DRAW EXIST. EDGES OF PAVEMENT LINES BY COPIED PARALLEL ELEMENT
Description
Allows the user to copy an element parallel at a user defined distance with the new element placed with the new symbology set for existing edges of pavement lines.

NAME: REMOVPAV.BA
TITLE: DRAW EXIST. AREA PATTERN FOR REMOVAL OF ASPHALT
Description
Allows the user to pattern an area with cross hatching for removal of asphalt pavement. The command sets the level and symbology and pattern settings automatically. The pattern scale is set to a size that can be used on any plot scale, but the user has the option to change the pattern scale. The command defaults to the pattern area points command, but again the user has the option to change the pattern method.

NAME: XSHLDR.BA
TITLE: DRAW EXISTING SHOULDER LINES
Description
Sets the parameters to draw existing shoulder lines. The user needs to use the standard Microstation commands to draw the shoulder lines.

NAME: PXSHLDR.BA
TITLE: DRAW EXIST. SHOULDER LINES BY COPIED PARALLEL ELEMENT
Description
Allows the user to copy an element parallel at a user defined distance with the new element placed with the new symbology set for existing shoulder lines.

NAME: XDRIVE.BA
TITLE: DRAW EXISTING DRIVEWAYS
Description
Sets the parameters to draw existing driveways. Existing driveways have the same settings an existing edges of pavement (xep.ucm).

NAME: XCURB.BA
TITLE: DRAW EXISTING CURB
Description
Sets the parameters to draw existing curb.

NAME: XSIDEWLK.BA
TITLE: DRAW EXISTING SIDEWALK
Description
Sets the parameters to draw existing sidewalk.

NAME: XRWLLT.BA
CALLS: RWDSTY.RSC, CALCULATE.MA
TITLE: DRAW EXISTING ROADWAY RETAINING WALLS
Description
Sets the parameters to draw existing roadway retaining walls. The user needs to use standard Microstation commands to draw.

NAME: XBRIDGES.BA
TITLE: DRAW EXISTING BRIDGES
Description
Sets the parameters to draw existing bridges.

NAME: XBOXBRG.BA
TITLE: DRAW EXISTING BOX BRIDGES
Description
Sets the parameters to draw existing box bridges.

NAME: XBRWINGS.BA
TITLE: PLACE BRIDGE TICS ON CORNERS OF EXISTING BRIDGES.
Description
This places a tic mark representing the corners of existing bridges.

Notes:
1. It will not work entirely correct on curved bridges. It will place the tics, but they will not be orientated in the right direction. The user can use modify commands to adjust the tics.
2. The corners of the bridge must be identified in a counter-clockwise direction.
3. The first two corners identified must be along the bridge rail to insure that the symbols are place correctly on a bridge that has skewed abutments.

EXISTING > TRANSPORTATION FEATURES > ALIGNMENTS

NAME: XSURVEYMLSTA.BA
TITLE: PLACE EXISTING TRANSPORTATION ALIGNMENTS - MAINLINE STATIONS
Description
Used to place label lines and text for Existing Transportation Alignment Mainline Stations

NAME: XSURVEYMLABELTX.BA
TITLE: PLACE EXISTING TRANSPORTATION ALIGNMENTS - MAINLINE LABELS
Description
Used to place label lines and text for Existing Transportation Alignment Mainline

NAME: XCVDSURVML.BA
TITLE: PLACE EXISTING TRANSPORTATION ALIGNMENTS - MAINLINE CURVE DATA
Description
Used to place label lines and text for Existing Transportation Alignment Mainline Curve Data

NAME: XSURVEYSECSTA.BA
TITLE: PLACE EXISTING TRANSPORTATION ALIGNMENTS - SECONDARY STATIONS
Description
Used to place label lines and text for Existing Transportation Alignment Secondary Stations

NAME: XSURVEYSECLABELTX.BA
TITLE: PLACE EXISTING TRANSPORTATION ALIGNMENTS - SECONDARY LABELS
Description
Used to place label lines and text for Existing Transportation Alignment Secondary Labels

NAME: XCVDSURVSEC.BA
TITLE: PLACE EXISTING TRANSPORTATION ALIGNMENTS - SECONDARY CURVE DATA
Description
Used to place label lines and text for Existing Transportation Alignment Secondary Curve Data

NAME: XSURVEYAUXSTA.BA
TITLE: PLACE EXISTING TRANSPORTATION ALIGNMENTS - AUXILIARY STATIONS
Description
Used to place label lines and text for Existing Transportation Alignment Auxiliary Stations

NAME: XSURVEYAUXLABELTX.BA
TITLE: PLACE EXISTING TRANSPORTATION ALIGNMENTS - AUXILIARY LABELS
Description
Used to place label lines and text for Existing Transportation Alignment Auxiliary Labels

NAME: XCVDSURVAUX.BA
TITLE: PLACE EXISTING TRANSPORTATION ALIGNMENTS - AUXILIARY CURVE DATA
Description
Used to place label lines and text for Existing Transportation Alignment Auxiliary Curve Data

NAME: XSURVEYLRSTA.BA
TITLE: PLACE EXISTING TRANSPORTATION ALIGNMENTS - LOCAL ROAD STATIONS
Description
Used to place label lines and text for Existing Transportation Alignment Local Road Stations

NAME: XSURVEYLRLABELTX.BA
TITLE: PLACE EXISTING TRANSPORTATION ALIGNMENTS - LOCAL ROAD LABELS
Description
Used to place label lines and text for Existing Transportation Alignment Local Road Labels

NAME: XCVDSURVLR.BA
TITLE: PLACE EXISTING TRANSPORTATION ALIGNMENTS - LOCAL ROAD CURVE DATA
Description
Used to place label lines and text for Existing Transportation Alignment Local Road Curve Data

NAME: XSURVEYDRAINSTA.BA
TITLE: PLACE EXISTING TRANSPORTATION ALIGNMENTS - DRAINAGE STATIONS
Description
Used to place label lines and text for Existing Transportation Alignment Drainage Stations

NAME: XSURVEYDRAINLABELTX.BA
TITLE: PLACE EXISTING TRANSPORTATION ALIGNMENTS - DRAINAGE LABELS
Description
Used to place label lines and text for Existing Transportation Alignment Drainage Labels

NAME: XCVDSURVDRAIN.BA
TITLE: PLACE EXISTING TRANSPORTATION ALIGNMENTS - DRAINAGE CURVE DATA
Description
Used to place label lines and text for Existing Transportation Alignment Drainage Curve Data

EXISTING > TRANSPORTATION FEATURES > RAILROAD >

NAME: RR.BA
CALLS: RWDSTY.RSC, CALCULATE.MA
TITLE: DRAW AND RAILROADS
Description
Sets the parameters to draw railroads. User needs to use the standard Microstation commands to draw.

NAME: RRC.BA
TITLE: PLACE EXISTING RAILROAD CONTROL BOX
Description
Activates the existing railroad control box for placement. The active angle is set interactively so the cell is placed at a rotation to align its text with other ground features.

NAME: RRSIGN.BA
TITLE: PLACE EXISTING RAILROAD SIGN
Description
Activates the existing railroad sign for placement. The active angle is set interactively so the cell is placed at a rotation to align its text with other ground features.

NAME: RRFS.BA
TITLE: PLACE EXISTING RAILROAD FLASHING SIGNAL
Description
Activates the existing railroad flashing signal cell for placement. The active angle is set interactively so the cell is placed at a rotation to align its text with other ground features.

NAME: RRFSG.BA
TITLE: PLACE EXISTING RAILROAD FLASHING SIGNAL with/ GATE
Description
Activates the existing railroad flashing signal with gate cell for placement. The active angle is set interactively so the cell is placed at a rotation to align its text with other ground features.

NAME: RRCFS.BA
TITLE: PLACE EXISTING CANTILEVER RAILROAD FLASHING SIGNAL
Description
Activates the existing cantilever railroad flashing signal cell for placement. The active angle is set interactively so the cell is placed at a rotation to align its text with other ground features.

NAME: RRCFSG.BA
TITLE: PLACE EXISTING CANTILEVER RAILROAD FLASHING SIGNAL with/ GATE
Description
Activates the existing cantilever railroad flashing signal with gate cell for placement. The active

angle is set interactively so the cell is placed at a rotation to align its text with other ground features.

NAME: RRMP.BA
TITLE: PLACE EXISTING RAILROAD MILE POST
Description
Activates the existing railroad mile post cell for placement. The active angle is set interactively so the cell is placed at a rotation to align its text with other ground features.

NAME: RRSW.BA
TITLE: PLACE EXISTING RAILROAD SWITCH
Description
Activates the existing railroad switch cell for placement. The active angle is set interactively so the cell is placed at a rotation to align its text with other ground features.

NAME: RRDEV.BA
TITLE: PLACE EXISTING RAILROAD DEVICE
Description
Activates the existing railroad device cell for placement. The active angle is set interactively so the cell is placed at a rotation to align its text with other ground features. This item should be placed only when the other devices can't describe the item.

EXISTING > TRANSPORTATION > TEXT >

NAME: XTRANTX.BA
TITLE: PLACE TEXT FOR EXISTING TRANSPORTATION FEATURES DESCRIPTIONS
Description
Sets the text parameters to place text for existing transportation features descriptions. Use to describe features, such as, edges of pavement, shoulders, curb and gutter, bridges, walls and railroads. The current active scale determines the text size. The 'place dialogtext' command is issued to allow the user to begin placing text.

NAME: CIRXTRANS.BA (NO LONGER USED)
TITLE: PLACE CIRCLE WITH NUMBERS ON EXISTING TRANSPORTATION TEXT LEVEL
Description
No longer used, except in versions V8 and earlier.
Use to place a circle with numbers on the existing transportation text level. The users must input a number to activate a cell with that number. Valid numbers are: 1 to 50.

EXISTING > NON-TRANSPORTATION > STRUCTURES

NAME: BUILDING.BA
TITLE: DRAW EXISTING BUILDINGS
Description
Set the standard symbology needed to draw existing buildings. You should draw the elements with normal Microstation commands. The place orthogonal shape command should be used when possible.

NAME: CONCPAD.BA
TITLE: DRAW EXISTING CONCRETE PADS
Description
Set the standard symbology needed to draw existing concreter pads. You should draw the elements with normal Microstation commands. The place orthogonal shape command should be used when possible.

NAME: HOSP.BA
TITLE: PLACE HOSPITAL SYMBOL
Description
Activates the hospital symbol cell (hos) for placement. The active angle is set interactively prior to placing the cell so that the cell is placed at a rotation to align its text with previously placed features.

EXISTING > NON-TRANSPORTATION > PAVEMENT

NAME: XAIRPORTRUNWAY.BA
TITLE: PLACE EXISTING AIRPORT RUNWAYS
Description
Set the standard symbology needed to draw existing airport runways. You should draw the elements with normal Microstation commands. The place line/line string command should be used when possible.

NAME: XDRIPAR.BA
TITLE: DRAW EXISTING PARKING LOTS AND DRIVES (OUTSIDE OF R.O.W.)
Description
Set the parameters to draw existing parking lots and drives that fall outside the Right-of-Way limits. The user needs to use the standard Microstation commands to draw.

NAME: WALKWAY.BA
TITLE: DRAW EXISTING WALKWAYS
Description

Set the parameters to draw existing walkways (sidewalks, trails, tracks, paths, etc.). The user needs to use the standard Microstation commands to draw.

EXISTING > NON-TRANSPORTATION > WALLS

NAME: XRWLLNT.BA
CALLS: RWDSTY.RSC. CALCULATE.MA
TITLE: DRAW EXISTING RESIDENTIAL RETAINING WALLS
Description
Sets the parameters to draw existing residential retaining walls. The user needs to use standard Microstation commands to draw.

NAME: XSEAWALL.BA
TITLE: PLACE EXISTING SEA WALLS
Description
Set the standard symbology needed to draw existing sea walls. You should draw the elements with normal Microstation commands. The place line/line string command should be used when possible.

EXISTING > NON-TRANSPORTATION > MISCELLANEAOUS

NAME: CEM.BA
TITLE: PLACE CEMETERY CELL SYMBOL
Description
Used to place a cemetery cell symbol. The active angle is set interactively so that the cell is placed at a rotation to align it with other ground features.

NAME: SAT.BA
TITLE: PLACE EXISTING SATELLITE DISH SYMBOL CELL
Description
Activates the existing satellite dish symbol cell (satlit) for placement. The active angle is set interactively so the cell is placed at a rotation to align its text with other ground features.

NAME: FLAGPOLE.BA
TITLE: PLACE EXISTING FLAGPOLE
Description
Activates the existing flag pole cell (flag) for placement. The active angle is set interactively so the cell is placed at a rotation to align its text with other ground features.

NAME: XWELL.BA
TITLE: PLACE EXISTING WELL SYMBOL CELLS
Description
Activates the existing well symbol cell (xwell) for placement. The active angle is set interactively prior to placing the cell so that the cell is placed at a rotation to align its text with previously placed ground features.

NAME: POOL.BA
TITLE: PLACE EXISTING POOL
Description
Sets the standard symbology needed to draw existing pools (Above and In-Ground). You should draw the elements with normal Microstation commands. The Place Orthogonal shape command is selected by default, but other commands can be used.

NAME: GASPUMP.BA
TITLE: PLACE EXISTING GAS PUMP SYMBOL CELL
Description
Activates the existing gas pump symbol cell (gpump) for placement. The active angle is set interactively so the cell is placed at a rotation to align its text with other ground features.

NAME: VAC.BA
TITLE: PLACE EXISTING COMMERCIAL VACCUM
Description
Activates the existing commercial vacuum cell for placement. The active angle is set interactively so the cell is placed at a rotation to align its text with other ground features.

NAME: PK.BA
TITLE: PLACE EXISTING PARKING METER
Description
Activates the existing parking meter cell for placement. The active angle is set interactively so the cell is placed at a rotation to align its text with other ground features.

NAME: SPRINKLER.BA
TITLE: PLACE EXISTING SPRINKLER
Description
Activates the existing sprinkler cell for placement. The active angle is set interactively so the cell is placed at a rotation to align its text with other ground features.

NAME: MAILBOX.BA
TITLE: PLACE EXISTING MAILBOX
Description
Activates the existing mailbox cell (mailbox) for placement. The active angle is set interactively so the cell is placed at a rotation to align its text with other ground features

NAME: XCATTLEGAP.BA
TITLE: PLACE EXISTING CATTLE GAPS
Description
Set the standard symbology needed to draw existing cattle gaps. You should draw the elements with normal Microstation commands. The place line/line string command should be used when possible.

EXISTING > NON-TRANSPORTATION > VEGETATION >

NAME: TREE.BA
TITLE: DRAW TREE
Description
Used to place tree symbol cells. Allows the users to key in a (-) or (+) from the keyboard or number pad to decrease or increase the size of the cell in 25% increments.

NAME: TREEHIST.BA
TITLE: DRAW TREE
Description
Used to place historical tree symbol cells. Allows the users to key in a (-) or (+) from the keyboard or number pad to decrease or increase the size of the cell in 25% increments.

NAME: TREELINE.BA
CALLS: RWDSTY.RSC, CALCULATE.MA
TITLE: DRAW TREE LINES (WOODED AREAS)
Description
Use to help draw tree lines (wooded areas) on the standard level structure.

NAME: XHEDGE.BA
CALLS: RWDSTY.RSC, CALCULATE.MA
TITLE: DRAW EXISTING HEDGE ROWS
Description
Sets the parameters to draw existing hedge rows. The user needs to use standard Microstation commands to draw.

NAME: BUSH.BA
TITLE: PLACE A BUSH CELL
Description
Activate the bush cell for placement on the proper level. Allows the users to key in a (-) or (+) from the keyboard or number pad to decrease or increase the size of the cell in 25% increments.

NAME: SHRUB.BA
TITLE: PLACE A SHRUB CELL
Description
Activate the shrub cell for placement on the proper level. Allows the users to key in a (-) or (+) from the keyboard or number pad to decrease or increase the size of the cell in 25% increments.

EXISTING > NON-TRANSPORTATION > TANKS >

NAME: XTANK.BS
TITLE: PLACE EXISTING ABOVE GROUND TANK SYMBOL CELL
Description
Activates the existing above ground tank symbol cell (xtank) for placement. The active angle is set interactively prior to placing the cell so that the cell is placed at a rotation to align its text with previously placed ground features.

NAME: XUTANK.BA
TITLE: PLACE EXISTING UNDERGROUND TANK SYMBOL CELL
Description
Activates the existing underground tank symbol cell (xutank) for placement. The active angle is set interactively prior to placing the cell so that the cell is placed at a rotation to align its text with previously placed ground features.

NAME: PPTANK.BA
TITLE: PLACE EXISTING PROPANE TANK
Description
Activates the existing propane tank cell (pptank) for placement. The active angle is set interactively so the cell is placed at a rotation to align its text with other ground features.

EXISTING > NON-TRANSPORTATION > FENCING >

NAME: XFENCE.BA
CALLS: RWDSTY.RSC, CALCULATE.MA
TITLE: DRAW EXISTING FENCE LINES
Description
Sets the parameters to draw existing fence lines. The user needs to use standard Microstation commands to draw.

NAME: XSHFENCE.BA
TITLE: DRAW EXISTING SHORT FENCE LINES

Description
Sets the parameters to draw existing short fence lines. This command is basically the same as 'xfence.ucm'. It is used when the user needs to place fence post on the line that is to short for the normal spacing to fit on the line. The user needs to use the standard Microstation commands to draw.

NAME: XFENPOS.BA
TITLE: PLACE EXISTING FENCE POST CELL
Description
Activates the existing fence post cell (xfpost) for placement. The active angle is set graphically prior to placing the cell so that the cell is placed at a rotation to align it with a previously placed ditch line.

NAME: GATEPOST.BA
TITLE: PLACE EXISTING GATE POST CELL
Description
Activates the existing gate post cell (gpost) for placement.

NAME: FENCORNER.BA
TITLE: PLACE EXISTING FENCE CORNER CELL
Description
Activates the existing fence corner cell (fencor) for placement.

EXISTING > NON-TRANSPORTATION > TEXT >

NAME: LEADERXNONTRANS.BA
TITLE: PLACE A 3 POINT LEADER LINE W/ARROWHEAD
CALLS: CALC.MA, RWDSTY.RSC
Description:
Use to place a 3 point leader line on the appropriate level and symbology. Activates Line Style "arrowline" to generate an arrowhead on the first point of the leaderline. The arrowhead is part of the line string, so it can be moved and modified as a group. Line Style scale is determined initially by the active scale, but once the user has place the initial beging point of the line they have enter a plus (+) or (-) to increase or decrease the line style scale by 25%, therefore changing the arrow head scale at the same time. On the keyboard the plus requires a shift to enter. To add conviencence you can press the = under it, thus not requiring the shift key.

NAME: XNONTRTX.BA
TITLE: PLACE TEXT FOR EXIST. NON-TRANSPORTATION FEATURES DESCRIPTIONS
Description

Sets the text parameters to place text for existing non-transportation features. This would be text describing such things as buildings, trees, pools, sidewalks, wells, cemeteries, towers, fields, pits, etc. The current active scale determines the text size. The user enters text and places it, the command then activates the spin command to allow you to orientate the text with other features.

EXISTING > SAFETY DEVICES > DEVICES

NAME: XGRRT.BA
CALLS: RWDSTY.RSC, CALCULATE.MA
TITLE: DRAW EXISTING GUARDRAIL (RIGHT SIDE)
Description
Sets the parameters to draw existing guard rail (right side). This means the line when drawn from left to right the post begin on the right side of the rail. The user needs to use standard Microstation commands to draw.

NAME: XGRLT.BA
CALLS: RWDSTY.RSC, CALCULATE.MA
TITLE: DRAW EXISTING GUARDRAIL (LEFT SIDE)
Description
Sets the parameters to draw existing guard rail (left side). This means the line when drawn from left to right the post begin on the left side of the rail. The user needs to use standard Microstation commands to draw.

NAME: XBARRIER.BA
CALLS: RWDSTY.RSC, CALCUALTE.MA
TITLE: DRAW EXISTING PRECAST BARRIER LINES
Description
Sets the parameters to draw existing precast barrier lines. The user needs to use the standard Microstation commands to draw.

EXISTING > SAFETY DEVICES > TEXT

NAME: XSAFDVTX.BA
TITLE: PLACE TEXT FOR EXISTING TRAFFIC SAFETY DEVICE DESCRIPTIONS
Description
Sets the text parameters to place text for existing traffic safety device descriptions. Such as, guard rail and attenuators. The current active scale determines the text size. The user enters text and places it, the command then activates the spin command to allow you to orientate the text with other features.

NAME: LEADERXSAFEDEV.BA
TITLE: PLACE A 3 POINT LEADER LINE W/ARROWHEAD
CALLS: CALC.MA, RWDSTY.RSC
Description:
Use to place a 3 point leader line on the appropriate level and symbology. Activates Line Style "arrowline" to generate an arrowhead on the first point of the leaderline. The arrowhead is part of the line string, so it can be moved and modified as a group. Line Style scale is determined initially by the active scale, but once the user has place the initial beging point of the line they have enter a plus (+) or (-) to increase or decrease the line style scale by 25%, therefore changing the arrow head scale at the same time. On the keyboard the plus requires a shift to enter. To add conviencence you can press the = under it, thus not requiring the shift key.

EXISTING > DRAINAGE > PIPES/CULVERTS

NAME: XPIPES.UCM
CALLS: MNU.UCM, RWDSTY.RSC, CALCULATE.MA, XPIPESMSG.BA, XPIPES.TXT
TITLE: PLACE EXISTING PIPES ON DRAINAGE LEVEL
Description
This command is used to place pipes on the drainage level. It works by prompting the user to enter a pipe size. The pipe size should be entered in inches. Arch pipes sizes are entered as (22x13, 29x18, etc.). If an invalid size is entered the command will issue a warning and re-prompt for the pipe size. After the pipe size is entered the active scale is used to test for the proper user defined line style element to place. The user can then place this line into the design file. Precision key-ins (xy=, di=, dx=, and dl=) can be used to place the pipe. Then the user can continue placing that pipe size or by hitting (reset), enter a new pipe size or exit. This command requires the key in tool window, if it is not open the command will open it. If the user presses "?" they can view valid pipe size in a dialog box. The called macro (xpipesmsg.ba) displays a file called xpipes.txt on the screen as follows:

NAME: XFES.BA
TITLE: PLACE EXISTING FLARED END SECTION CELL
Description
Activates one of the existing flared end section cells for placement on the ends of pipes. The cell is placed using the line terminator command using the flared end section cells as the active line terminator cell. The current active scale and pipe size determines which cell is placed. The user must input the size of the flared end section and identify the the pipe line closest to the end of the pipe that they wish to place the cell.

NAME: GPKXFES.BA
CALLS: ACBOOK.MA, PLACE_FES_EX.X
TITLE: GEOPAK 3PC PLACE EXISTING FLARED END SECTIONS IN PLAN VIEW
Description
Activates one of the existing flared end section cells for placement on the ends of pipes. The active angle is set graphically by identifying the center of the pipe it connects to. The current active scale and pipe size determines the cell that is placed.

NAME: XINLET.BA
TITLE: PLACE EXISTING INLET
Description
Set the active parameters to draw existing inlets. The user must use standard Microstation commands to draw.

NAME: XBOXCULV.BA
TITLE: DRAW EXISTING BOX CULVERTS
Description
Sets the parameters to draw existing box culverts.

NAME: XUDRAIN.BA
CALLS: RWDSTY.RSC, CALCULATE.MA
TITLE: DRAW EXISTING UNDERDRAIN LINES
Description
Sets the parameters to draw existing underdrain lines. The user needs to use standard Microstation commands to draw.

NAME: XMANHOLE.BA
TITLE: PLACE EXISTING MANHOLE CELL
Description
Activates the existing manhole cell (xmhole) for placement. The active angle is set interactively prior to placing the cell so that the cell is placed at a rotation to align its text with other ground features.

EXISTING > DRAINAGE > DITCH/STREAMS/LAKES

NAME: XDIT.BA
TITLE: DRAW EXISTING DITCH LINES
Description
Sets the parameters to draw existing ditch lines. The user must use standard Microstation commands to draw.

NAME: XDITPLU.BA
TITLE: PLACE EXISTING DITCH PLUG CELL
Description
Activates the existing ditch plug cell (dplug) for placement. The active angle is set interactively so that the cell is placed at a rotation to align it with a previously placed ditch line.

NAME: XSTREAM.BA
CALLS: RWDSTY.RSC, CALCULATE.MA
TITLE: DRAW EXISTING STREAM LINES
Description
Used to draw existing streams, creeks, rivers, ditches, etc. On the standard level structure. The user needs to use the standard Microstation commands to draw.

NAME: XHYDRO.BA
TITLE: PLACE EXISTING HYDRAULIC FLOW LINE

Description
Set the active parameters to draw directional hydro lines. Can be used instead of stream lines, but you must draw in the correct direction.

NAME: XSPURDK.BA
TITLE: DRAW EXISTING SPUR DIKES
Description
Sets up the standard symbology needed to draw existing spur dikes. The user must pick a standard Microstation command to place elements.

EXISTING > DRAINAGE > WETLANDS/RIPRAP

NAME: SWAMP.BA
TITLE: PLACE SWAMP SYMBOL CELL
Description
Activates the swamp symbol cell (swamp) for placement. The active angle is set interactively to align it with other plan features.

NAME: WET.BA
TITLE: AREA PATTERN FOR WETLANDS
Description
Set the area pattern parameters to allow patterning it with wetland symbols.

NAME: RIPRAP_X.BA
TITLE: AREA PATTERN FOR WETLANDS
Description
Set the area pattern parameters to allow patterning it with riprap symbols.

EXISTING > DRAINAGE > TEXT

NAME: LEADERXDRAINAGE.BA
TITLE: PLACE A 3 POINT LEADER LINE W/ARROWHEAD
CALLS: CALC.MA, RWDSTY.RSC
Description:
Use to place a 3 point leader line on the appropriate level and symbology. Activates Line Style "arrowline" to generate an arrowhead on the first point of the leaderline. The arrowhead is part of the line string, so it can be moved and modified as a group. Line Style scale is determined initially by the active scale, but once the user has place the initial beginning point of the line they have enter a plus (+) or (-) to increase or decrease the line style scale by 25%, therefore

changing the arrow head scale at the same time. On the keyboard the plus requires a shift to enter. To add convenience you can press the = under it, thus not requiring the shift key.

NAME: XDRNTX.BA
TITLE: PLACE TEXT FOR EXISTING DRAINAGE DESCRIPTIONS
Description
Sets the text parameters to place text for existing drainage descriptions. The current active scale determines the text size. The user enters text and places it, the command then activates the spin command to allow you to orientate the text with other features.

NAME: GPKXDRNTX.BA
CALLS: ACBOOK.MA, LABEL_PIPES_EX_PLAN.X
TITLE: GEOPAK PLACE EXISTING PIPE LABELS IN PLAN
Description
Accesses the Geopak 3PC criteria code to label existing pipes in a plan view. A Geopak alignment and selection set is required before running this command. Locate the Geopak alignment name and select the pipes you wish to label.

EXISTING > RIGHT-OF-WAY > X-ROW

NAME: XROW.BA
CALLS: RWDSTY.RSC, CALCULATE.MA
TITLE: DRAW EXISTING RIGHT-OF-WAY LINES
Description
Sets the parameters to draw existing Right-of-Way lines. The user needs to use standard Microstation commands to draw.

NAME: PXROW.BA
CALLS: RWDSTY.RSC, CALCULATE.MA
TITLE: DRAW EXISTING PARALLEL RIGHT-OF-WAY LINES
Description
Sets the parameters to draw existing parallel Right-of-Way lines. The user identifies the element to copy parallel and the distance. Microstation turn on the feature "use active attributes" to change the copied element to existing row lines.

NAME: XROWMAR.BA
TITLE: PLACE EXISTING RIGHT-OF-WAY MARKER CELL
Description
Activates the existing Right-of-Way marker cell (xrowmk) for placement. Use the tool setting dialog to change scales or other cell placement settings.

NAME: XROWMARCP.BA
TITLE: PLACE EXISTING COMPUTED RIGHT-OF-WAY MARKER CELL
Description
Activates the computed existing Right-of-Way marker cell (xrowmkcp) for placement. Use the tool setting dialog to change scales or other cell placement settings.

NAME: XNOACC.BA
CALLS: RWDSTY.RSC, CALCULATE.MA
TITLE: DRAW EXISTING NO ACCESS RIGHT-OF-WAY LINES
Description
Sets the parameters to draw existing no access Right-of-Way lines. The user needs to use standard Microstation commands to draw.

NAME: XPNOACC.BA
CALLS: RWDSTY.RSC, CALCULATE.MA
TITLE: DRAW EXISTING PARALLEL NO ACCESS RIGHT-OF-WAY LINES
Description
Sets the parameters to draw existing parallel no access Right-of-Way lines. The user needs to use standard Microstation commands to draw.

EXISTING > RIGHT-OF-WAY > TEXT

NAME: XROWTX.BA
TITLE: PLACE TEXT FOR EXISTING RIGHT-OF-WAY DESCRIPTIONS
Description
Sets the text parameters to place text for existing Right-of-Way descriptions. The user enters text and places it, the command then activates the spin command to allow you to orientate the text with other features.

NAME: LEADERXROW.BA
TITLE: PLACE A 3 POINT LEADER LINE W/ARROWHEAD
CALLS: CALC.MA, RWDSTY.RSC
Description:
Use to place a 3 point leader line on the appropriate level and symbology. Activates Line Style "arrowline" to generate an arrowhead on the first point of the leaderline. The arrowhead is part of the line string, so it can be moved and modified as a group. Line Style scale is determined initially by the active scale, but once the user has place the initial beging point of the line they have enter a plus (+) or (-) to increase or decrease the line style scale by 25%, therefore changing the arrow head scale at the same time. On the keyboard the plus requires a shift to enter. To add conviencence you can press the = under it, thus not requiring the shift key.

EXISTING > POLITICAL BOUNDRIES > TOOLS

NAME: PLN.BA
CALLS: RWDSTY.RSC, CALCULATE.MA
TITLE: DRAW PROPERTY LINES
Description
Set the parameters to draw property lines. The user needs to use the standard Microstation commands to draw.

NAME: PLNFEN.BA
CALLS: RWDSTY.RSC, CALCULATE.MA
TITLE: DRAW PROPERTY LINES WITH FENCE
Description
Set the parameters to draw property lines with fence. The user needs to use the standard Microstation commands to draw.

NAME: LOTLINE.BA
CALLS: RWDSTY.RSC, CALCULATE.MA
TITLE: DRAW LOT LINES
Description
Set the parameters to draw lot lines. The user needs to use the standard Microstation commands to draw.

NAME: STATELN.BA
TITLE: DRAW STATE LINE LIMITS
Description
Sets the parameters to draw state line limits. The user needs to use standard Microstation commands to draw.

NAME: COUNTYLN.BA
CALLS: RWDSTY.RSC, CALCULATE.MA
TITLE: SET SYMBOLOGY TO DRAW COUNTY LINES
Description
Sets the correct level symbology and active patterns to draw county limit lines. The user should draw the elements with normal Microstation commands.

NAME: CITYLN.BA
TITLE: DRAW LINE FOR URBAN LIMITS
Description
Sets the correct level symbology and active patterns to draw urban limit lines. The user should draw the elements with normal Microstation commands. The patterning dialog box is automatically activated.

NAME: SECTLINE.BA
TITLE: DRAW SECTION LINES
Description
Sets the parameters to draw section lines. The user needs to use the standard Microstation command to draw.

NAME: SECTLINEFEN.BA
TITLE: DRAW SECTION LINES WITH FENCE
Description
Sets the parameters to draw section lines with fence. The user needs to use the standard Microstation command to draw.

NAME: IRONPIN.BA
TITLE: PLACE EXISTING (FOUND) IRON PIN SYMBOL CELL
Description
Activates the existing found iron pin symbol cell (fip) for placement. The active angle is set interactively so the cell is placed at a rotation to align its text with other ground features.

NAME: FC.BA
TITLE: PLACE EXISTING FOUND (PROPERTY) CORNER SYMBOL CELL
Description
Activates the existing found (property) corner symbol cell (fc) for placement. The active angle is set interactively so the cell is placed at a rotation to align its text with other ground features.

NAME: PL.BA
TITLE: PLACE PROPERTY LINE SYMBOL CELL
Description
Activates the property line symbol cell (pl) for placement. The active angle is set interactively prior to placing the cell so that the cell is placed at a rotation to align it with the property line.

NAME: SL.BA
TITLE: PLACE SECTION LINE SYMBOL CELL
Description
Activates the section line symbol cell (sl) for placement. The active angle is set interactively to align with the existing section line.

EXISTING > POLITICAL BOUNDRIES > TEXT

NAME: LEADERXPROPERTY.BA
TITLE: PLACE A 3 POINT LEADER LINE W/ARROWHEAD
CALLS: CALC.MA, RWDSTY.RSC
Description:

Use to place a 3 point leader line on the appropriate level and symbology. Activates Line Style "arrowline" to generate an arrowhead on the first point of the leaderline. The arrowhead is part of the line string, so it can be moved and modified as a group. Line Style scale is determined initially by the active scale, but once the user has place the initial beging point of the line they have enter a plus (+) or (-) to increase or decrease the line style scale by 25%, therefore changing the arrow head scale at the same time. On the keyboard the plus requires a shift to enter. To add conviencence you can press the = under it, thus not requiring the shift key.

NAME: LEADERXPROPERTYOWNER.BA
TITLE: PLACE A 3 POINT LEADER LINE W/ARROWHEAD
CALLS: CALC.MA, RWDSTY.RSC
Description:
Use to place a 3 point leader line on the appropriate level and symbology. Activates Line Style "arrowline" to generate an arrowhead on the first point of the leaderline. The arrowhead is part of the line string, so it can be moved and modified as a group. Line Style scale is determined initially by the active scale, but once the user has place the initial beging point of the line they have enter a plus (+) or (-) to increase or decrease the line style scale by 25%, therefore changing the arrow head scale at the same time. On the keyboard the plus requires a shift to enter. To add conviencence you can press the = under it, thus not requiring the shift key.

NAME: XPRTYTX.BA
TITLE: PLACE TEXT FOR EXISTING PROPERTY LINE DESCRIPTIONS
Description
Sets the text parameters to place text for existing property line descriptions (No Land Owners). The current active scale determines the text size. The user enters text and places it, the command then activates the spin command to allow you to orientate the text with other features.

NAME: XPRTYOTX.BA
TITLE: PLACE TEXT FOR EXISTING PROPERTY OWNERS
Description
Sets the text parameters to place text for existing property line Owners. The current active scale determines the text size. The user enters text and places it, the command then activates the spin command to allow you to orientate the text with other features.

EXISTING > UTILITITY SERVICES >

NAME: CBLTV.BA
CALLS: RWDSTY.RSC, CALCULATE.MA
TITLE: DRAW EXISTING CABLE TV LINES
Description

Sets the parameters to draw existing cable tv lines. The user needs to use standard Microstation commands to draw.

NAME: CP.BA
TITLE: PLACE EXISTING CABLE POLE CELL
Description
Activates the existing cable pole cell (xcp) for placement. The active angle is set graphically prior to placing the cell to set the rotations to align it with other ground features.

NAME: CBLBOX.BA
TITLE: PLACE EXISTING UTILITY CABLE BOX CELL
Description
Activates the existing utility cable box cell (cblbox) for placement. The active angle is set interactively to align its text with other ground features.

NAME: XGASLN.BA
CALLS: RWDSTY.RSC, CALCULATE.MA
TITLE: DRAW EXISTING GAS LINES
Description
Sets the parameters to draw existing gas lines. The user needs to use standard Microstation commands to draw.

NAME: GM.BA
TITLE: PLACE EXISTING GAS METER CELL
Description
Activate the existing gas meter cell (xgm) for placement. The active angle is set interactively to align the text with other ground features

NAME: GV.BA
TITLE: PLACE EXISTING GAS VALVE CELL
Description
Activates the existing gas valve cell (xgv) for placement. The active angle is set interactively to align its text with other ground features

NAME: LP.BA
TITLE: PLACE EXISTING LIGHT POLE CELL
Description
Activates the existing light pole cell (xlp) for placement. The active angle is set interactively to align it with other ground features.

NAME: LPPED.BA
TITLE: PLACE EXISTING LIGHT POLE AND PEDESTAL CELL
Description
Activates the existing combination light pole and pedestal cell (lpped) for placement. The active angle is set interactively to align it with other ground features.

NAME: XHM.BA
TITLE: PLACE EXISTING HIGH MAST LIGHT POLE CELL
Description
Activates the existing high mast light pole cell (xhm) for placement. The active angle is set interactively to align it with other ground features.

NAME: LUM.BA
TITLE: PLACE EXISTING LUMINARE CELL
Description
Activates the existing luminare cell (xlum) for placement. The active angle is set graphically prior to placing the cell to set the rotation to align it with other ground features.

NAME: PP.BA
TITLE: PLACE EXISTING POWER POLE SYMBOL CELL
Description
Activates the existing power pole symbol cell (xpp) for placement. The active angle is set interactively so that the cell is placed at a rotation to align its text with other ground features.

NAME: PPPED.BA
TITLE: PLACE EXISTING POWER POLE AND PEDESTAL CELL
Description
Activates the existing combination power pole and pedestal cell (ppped) for placement. The active angle is set interactively to align it with other ground features.

NAME: XUGPOWER.BA
CALLS: RWDSTY.RSC, CALCULATE.MA
TITLE: DRAW EXISTING UNDERGROUND POWER LINES
Description
Sets the parameters to draw existing under ground power lines. The user needs to use standard Microstation commands to draw.

NAME: XABPOWER.BA
CALLS: RWDSTY.RSC, CALCULATE.MA
TITLE: DRAW EXISTING ABOVE GROUND POWER LINES
Description

Use to draw existing above ground power lines the standard level structure. The line style is designed to show a line that only comes a short distance out from each power pole.

NAME: TRNFMR.BA
TITLE: PLACE EXISTING UTILITY TRANSFORMER CELL
Description
Activates the existing utility transformer cell (trnfmr) for placement. Is used for all types of utility transformers. The active angle is set interactively to align its text with other ground features.

NAME: ELECM.BA
TITLE: PLACE EXISTING ELECTRIC METER CELL
Description
Activates the existing electric meter cell (xem) for placement. The active angle is set interactively to align it with other ground features.

NAME: XSSLN.BA
CALLS: RWDSTY.RSC, CALCULATE.MA
TITLE: DRAW EXISTING SANITARY SEWER LINES
Description
Sets the parameters to draw existing sanitary sewer lines. The user needs to use standard Microstation commands to draw.

NAME: XSSMHOLE.BA
TITLE: PLACE EXISTING SANITARY SEWER MANHOLE CELL
Description
Activates the existing sanitary sewer cell (xssmhl) for placement. The active angle is set interactively prior to placing the cell so that the cell is placed at a rotation to align its text with a previously placed ground features.

NAME: XTELELN.BA
CALLS: RWDSTY.RSC, CALCULATE.MA
TITLE: DRAW EXISTING TELEPHONE LINES
Description
Sets the parameters to draw existing telephone lines. The user needs to use standard Microstation commands to draw.

NAME: TP.BA
TITLE: PLACE EXISTING TELEPHONE POLE CELL
Description

Activates the existing telephone pole cell (xtp) for placement. The active angle is set interactively so that the cells is placed at a rotation to align its text with other ground features.

NAME: TELPED.BA
TITLE: PLACE EXISTING TELEPHONE PEDESTAL CELL
Description
Activates the existing telephone pedestal cell (xtped) for placement. The active angle is set interactively so the cell is placed at a rotation to align its text with other ground features.

NAME: TPPED.BA
TITLE: PLACE EXISTING TELEPHONE POLE AND PEDESTAL CELL
Description
Activates the existing combination telephone pole and pedestal cell (tpped) for placement. The active angle is set interactively to align it with other ground features.

NAME: TELBOOTH.BA
TITLE: DRAW EXISTING TELEPHONE BOOTHS
Description
Use to place existing telephone booth cell. The active angle is set interactively so the cell is placed at a rotation to align it with other ground features.

NAME: XWATERLN.BA
CALLS: RWDSTY.RSC, CALCULATE.MA
TITLE: DRAW EXISTING WATER LINES
Description
Sets the parameters to draw existing water lines. The user needs to use standard Microstation commands to draw.

NAME: WM.BA
TITLE: PLACE EXISTING WATER METER SYMBOL CELL
Description
Activates the existing water meter cell (xwm) for placement. The active angle is set interactively so that the cell is placed at a rotation to align its text with other ground features.

NAME: WV.BA
TITLE: PLACE EXISTING WATER VALVE SYMBOL CELL
Description
Activates the existing water valve cell (xwv) for placement. The active angle is set interactively so that the cell is placed at a rotation to align its text with other ground features.

NAME: FIREPLUG.BA
TITLE: PLACE EXISTING FIRE PLUG (FIRE HYDRANT)

Description
Activates the existing fire plug cell (xfp) for placement. The active angle is set interactively so the cell is placed at a rotation to align its text with other ground features.

NAME: TOWER.BA
TITLE: PLACE EXISTING UTILITY TOWER CELL
Description
Activates the existing utility antenna cell (antena) for placement. Is used for all types of utility Tower. The active angle is set interactively to align its text with other ground features

NAME: ANTENNA.BA
TITLE: PLACE EXISTING UTILITY ANTENNA CELL
Description
Activates the existing utility antenna cell (antena) for placement. Is used for all types of utility antennas. Including TV, Radio, etc. The active angle is set interactively to align its text with other ground features.

NAME: UMHOLE.BA
TITLE: PLACE EXISTING UTILITY MANHOLE CELL
Description
Activates the existing utility manhole cell (xmhole) for placement. Is used for all types of utility manholes. Including telephone, water, gas, etc. The active angle is set interactively to align its text with other ground features

NAME: PULLBOX.BA
TITLE: PLACE EXISTING PULL BOX CELL
Description
Activates the existing utility pull box cell (pbox) for placement. Is used for all types of utility pull boxes. The active angle is set interactively to align its text with other ground features.

NAME: XPOLE.BA
TITLE: PLACE EXISTING MISCELLANEOUS UTILITY POLE CELL
Description
Activates the existing cable miscellaneous utility pole cell (xpole) for placement. The active angle is set graphically prior to placing the cell to set the rotations to align it with other ground features. This cell is to be used in places where no other utility poles are not applicable.

NAME: LEADERXUTIL.BA
TITLE: PLACE A 3 POINT LEADER LINE W/ARROWHEAD
CALLS: CALC.MA, RWDSTY.RSC
Description:
Use to place a 3 point leader line on the appropriate level and symbology. Activates Line Style

"arrowline" to generate an arrowhead on the first point of the leaderline. The arrowhead is part of the line string, so it can be moved and modified as a group. Line Style scale is determined initially by the active scale, but once the user has place the initial beging point of the line they have enter a plus (+) or (-) to increase or decrease the line style scale by 25%, therefore changing the arrow head scale at the same time. On the keyboard the plus requires a shift to enter. To add conviencence you can press the = under it, thus not requiring the shift key.

NAME: XUTILTX.BA
TITLE: PLACE TEXT FOR EXISTING UTILITIES DESCRIPTIONS
Description
Sets the text parameters to place text for existing utilities descriptions. Use to describe existing utility features, such as, telephone lines, gas lines, water lines, power lines, water values, etc. The current active scale determines the text size. The user enters text and places it, the command then activates the spin command to allow you to orientate the text with other features.

EXISTING > SIGNS AND SIGNALS > SIGNS

NAME: SIGN.BA
TITLE: PLACE EXISTING SIGN CELL
Description
Activates the existing sign cell (sign) for placement. The active angle is set interactively to set the direction of the sign face. This command is used only for small roadside signs.

NAME: SIGNDBL.BA
TITLE: PLACE EXISTING DOUBLE-FACED SIGN CELL
Description
Activates the existing double faced sign cell (signd) for placement. The active angle is set interactively to set the direction of the sign face. This command is used only for small roadside signs.

NAME: BILLBRD.BA
TITLE: DRAW BILLBOARD SYMBOLS
Description
Use to help draw billboard symbols on the standard level structure.

EXISTING > SIGNS AND SIGNALS > SIGNALS

NAME: SP.BA
TITLE: PLACE EXISTING TRAFFIC SIGNAL POLE

Description
Activates the existing signal pole cell (sp) for placement. The active angle is set interactively to align it with other features.

NAME: TSC.BA
TITLE: PLACE EXISTING TRAFFIC CONTROL SIGNAL BOX
Description
Activates the existing traffic control signal box cell (tsc) for placement. The active angle is set interactively to align it with other features.

EXISTING > SIGNS AND SIGNALS > TEXT

NAME: LEADERXSIGNAL.BA
TITLE: PLACE A 3 POINT LEADER LINE W/ARROWHEAD
CALLS: CALC.MA, RWDSTY.RSC
Description:
Use to place a 3 point leader line on the appropriate level and symbology. Activates Line Style "arrowline" to generate an arrowhead on the first point of the leaderline. The arrowhead is part of the line string, so it can be moved and modified as a group. Line Style scale is determined initially by the active scale, but once the user has place the initial beging point of the line they have enter a plus (+) or (-) to increase or decrease the line style scale by 25%, therefore changing the arrow head scale at the same time. On the keyboard the plus requires a shift to enter. To add conviencence you can press the = under it, thus not requiring the shift key.

NAME: LEADERXSIGN.BA
TITLE: PLACE A 3 POINT LEADER LINE W/ARROWHEAD
CALLS: CALC.MA, RWDSTY.RSC
Description:
Use to place a 3 point leader line on the appropriate level and symbology. Activates Line Style "arrowline" to generate an arrowhead on the first point of the leaderline. The arrowhead is part of the line string, so it can be moved and modified as a group. Line Style scale is determined initially by the active scale, but once the user has place the initial beging point of the line they have enter a plus (+) or (-) to increase or decrease the line style scale by 25%, therefore changing the arrow head scale at the same time. On the keyboard the plus requires a shift to enter. To add conviencence you can press the = under it, thus not requiring the shift key.

NAME: XSIGNTX.BA
TITLE: SET TXT SIZE AND PARAMETERS FOR DRAWING EXIST. SIGNS.
Description
Used to set text size and drawing parameters for existing signs. The user enters text and places it, the command then activates the spin command to allow you to orientate the text with other features.

NAME: XSIGNALTX.BA
TITLE: SET TXT SIZE AND PARAMETERS FOR DRAWING EXIST. SIGNALS.
Description
Used to set text size and drawing parameters for existing signals. The user enters text and places it, the command then activates the spin command to allow you to orientate the text with other features.

EXISTING > PROFILES > TOOLS

NAME: XPROPIPHZ.UCM
CALLS: ASTEST.UCM, MNU.UCM
TITLE: PLACE HORIZONTAL PIPE IN PROFILE (HORIZONTAL ORIENTATION)
Description
Used to place existing pipes in profiles (horizontal orientation). The user identifies with a data point the beginning station reference. This point is usually a point on the bottom grid line of a profile sheet. The user then keys in the beginning station and elevation of that point. This gives the command a point of reference when calculating the location of the beginning and ending point of the pipe. The height of the pipe is then determined by the user by keying in the size of the pipe.
Valid scales are 1"=20' and 1"=100'

NAME: PIPEENDX.BA
TITLE: PLACE PIPE END SYMBOLS ON THE END OF TWO PARALLEL LINES FOR EXISTING PIPES IN A PROFILE
CALLS: PIPEEND.MA
Description
The command is designed to place a pipe end symbol on the end of two parallel lines for existing pipes in a profile. This command only works when you have two individual parallel lines, thus not making it useful for pipes in a plan view. User must identify two lines and the command will create draw a broken pipe end symbol along the two line at a user defined point.

EXISTING > PROFILES > TEXT

NAME: LEADERXPROFILEDRAIN.BA
TITLE: PLACE A 3 POINT LEADER LINE W/ARROWHEAD
CALLS: CALC.MA, RWDSTY.RSC
Description:
Use to place a 3 point leader line on the appropriate level and symbology. Activates Line Style "arrowline" to generate an arrowhead on the first point of the leaderline. The arrowhead is part of the line string, so it can be moved and modified as a group. Line Style scale is determined

initially by the active scale, but once the user has place the initial beginning point of the line they have enter a plus (+) or (-) to increase or decrease the line style scale by 25%, therefore changing the arrow head scale at the same time. On the keyboard the plus requires a shift to enter. To add convenience you can press the = under it, thus not requiring the shift key.

NAME: LEADERXPROFILE.BA
TITLE: PLACE A 3 POINT LEADER LINE W/ARROWHEAD
CALLS: CALC.MA, RWDSTY.RSC
Description:
Use to place a 3 point leader line on the appropriate level and symbology. Activates Line Style "arrowline" to generate an arrowhead on the first point of the leaderline. The arrowhead is part of the line string, so it can be moved and modified as a group. Line Style scale is determined initially by the active scale, but once the user has place the initial beginning point of the line they have enter a plus (+) or (-) to increase or decrease the line style scale by 25%, therefore changing the arrow head scale at the same time. On the keyboard the plus requires a shift to enter. To add convenience you can press the = under it, thus not requiring the shift key.

NAME: XPROFTX.BA
TITLE: PLACE TEXT FOR EXISTING PROFILE DESCRIPTIONS
Description
Sets the text parameters to place text for existing profile descriptions. This is usually text describing the existing profile. Such as, the elevations and baseline or line the profile was taken about. The current active scale determines the text size. The user enters text and places it, the command then activates the spin command to allow you to orientate the text with other features.

NAME: XPROFDRTX.BA
TITLE: PLACE TEXT FOR EXISTING PROFILE DRAINAGE TEXT
Description
Sets the text parameters to place text for existing profile drainage text. This is usually text describing the existing profile drainage. Such as, pipe sizes, flow lines, etc. The current active scale determines the text size. The user enters text and places it, the command then activates the spin command to allow you to orientate the text with other features.

EXISTING > CROSS SECTIONS > XS TOOLS

NAME: XSXGROUND.BA
TITLE: PLACE EXISTING X-SECTION GROUND LINE ELEMENTS
Description
Use to set symbology to place existing cross-section ground line elements. Use standard Microstation commands to place elements.

'NAME: XSXPAVMT.BA
TITLE: PLACE EXISTING X-SECTION PAVEMENT/SUB-BASE ELEMENTS
Description
Use to set symbology to place existing cross-section pavement sub-base elements. Use standard Microstation commands to place elements.

NAME: XSXDRAIN.BA
TITLE: PLACE EXISTING X-SECTION DRAINAGE ELEMENTS
Description
Use to set symbology to place existing cross-section drainage elements. Use standard Microstation commands to place elements.

NAME: XSXROW.BA
TITLE: PLACE EXISTING X-SECTION RIGHT-OF-WAY LINE ELEMENTS
Description
Use to set symbology to place existing cross-section Right-of-Way line elements. Use standard Microstation commands to place elements.

NAME: XSXUNSUIT.BA
TITLE: SET PARAMETERS FOR EXIST. X-SECTION UNSUITABLE MATERIAL ELEMENTS
Description
Sets the parameters to draw existing cross section unsuitable material elements. The user needs to use the standard Microstation commands to draw.

EXISTING > CROSS SECTIONS > XS TOOLS

NAME: XSSHSTA.UCM
TITLE: PLACE TEXT FOR EXISTING X-SECTION SHEET STATION LABELS
Description
Use to set symbology to place text for existing cross-section sheet station labels. Use standard Microstation commands to place text.

NAME: XSXGROUNDTX
TITLE: PLACE TEXT FOR EXISTING X-SECTION GROUND LINE ELEMENTS
Description
Use to set symbology to place text for existing cross-section ground line elements. Use standard Microstation commands to place text.

NAME: XSSHELEV.UCM
TITLE: PLACE TEXT FOR EXISTING X-SECTION SHEET ELEVATION LABELS
Description

Use to set symbology to place text for existing cross-section sheet elevation labels. Use standard Microstation commands to place text.

NAME: XSSHOFFSET.UCM
TITLE: PLACE TEXT FOR EXISTING X-SECTION SHEET OFFSET LABELS
Description
Use to set symbology to place text for existing cross-section sheet offset labels. Use standard Microstation commands to place text.

NAME: XSXTX.BA
TITLE: PLACE TEXT FOR EXISTING X-SECTION SHEET TEXT
Description
Use to set symbology to place text for existing cross-section sheet text. Use standard Microstation commands to place elements.

NAME: XSSLOPETXPT.BA
TITLE: MEASURE SLOPE AND PLACE TEXT ON EXISTING CROSS SECTION
Description
Use this command to measure a slope between two data points and place text above and element that represents that slope. The slope will be in percent or ratio depending on the measurement. User must identify the element to place the text above. Designed to place the text on Existing Cross Section level.

EXISTING > SURVEYING ITEMS > CONTROLS

NAME: BENMAR.BA
TITLE: PLACE EXISTING BENCHMARK SYMBOL
Description
Used to place a Benchmark Survey Control Marker.

NAME: PCMARK.BA
TITLE: PLACE EXISTING PRIMARY CONTROL MARK SYMBOL
Description
Used to place a Primary Survey Control Marker symbol.

NAME: SCMARK.BA
TITLE: PLACE EXISTING SECONDARY CONTROL MARK SYMBOL
Description
Used to place a Secondary Survey Control Mark symbol.

NAME: BMRKSTMP.BA
TITLE: PLACE A BENCH MARK STAMP.
Description
Used to place a bench mark stamp. The active angle is set interactively or by key in to help place the cell in the needed orientation. The user has to complete the stamp by filling in enter data fields on the stamp.

NAME: PCMSTMP.BA
TITLE: PLACE A PRIMARY SURVEY CONTROL MARK STAMP.
Description
Used to place a Primary Survey Control stamp. The active angle is set interactively or by key in to help place the cell in the needed orientation. The user has to complete the stamp by filling in enter data fields on the stamp.

NAME: SCMSTMP.BA
TITLE: PLACE A SECONDARY SURVEY CONTROL MARK STAMP.
Description
Used to place a Secondary Survey Control stamp. The active angle is set interactively or by key in to help place the cell in the needed orientation. The user has to complete the stamp by filling in enter data fields on the stamp.

NAME: NGRID.BA
TITLE: PLACE NORTH ARROW CELL (GRID)
Description
Activates the standard North arrow cell (ngrid) for placement. The user must identify the center of the cell location. The cell is displayed before placement so the user can either interactively define the direction to North or key in the active angle from zero. Used by District Offices on survey work drawings.

EXISTING > SURVEYING ITEMS > PROPERTY

NAME: DEEDLINE.BA
TITLE: DRAW PROPERTY DEED LINES
Description
Sets the parameters to draw property deed lines. The user needs to use the standard Microstation command to draw.

NAME: QUARTERLINE.BA
TITLE: DRAW PROPERTY QUARTER LINES
Description
Sets the parameters to draw property quarter lines. The user needs to use the standard Microstation command to draw.

NAME: FORTYLINE.BA (OLD- NO LONGER TO BE USED) (REMAINS FOR OLDER PROJECTS)
TITLE: DRAW (OLDER) PROPERTY FORTY LINES
Description
Sets the parameters to draw property forty lines. The user needs to use the standard Microstation command to draw.

PROPOSED >

PROPOSED > TRANSPORTATION FEATURES >

NAME: RETWALL.BA
CALLS: RWDSTY.RSC, CALCULATE.MA
TITLE: DRAW AND PROPOSED ROADWAY RETAINING WALLS
Description
Sets the parameters to draw proposed roadway retaining walls. Users need to use standard Microstation commands to draw.

NAME: SSTAKE.BA
CALLS: RWDSTY.RSC, CALCULATE.MA
TITLE: DRAW PROPOSED SLOPE STAKE LIMIT LINES
Description
Use to draw proposed slope stake limit lines on the standard level structure. Can place cut, fill, and transitional slope stake lines.

NAME: EP.BA
TITLE: SET SYMBOLOGY TO DRAW PROPOSED EDGES OF PAVEMENT
Description
Use to set symbology to draw and pattern proposed edge of pavement lines. Use the standard Microstation commands to draw and pattern.

NAME: PEP.BA
TITLE: DRAW PROP. EDGES OF PAVEMENT LINES BY COPIED PARALLEL ELEMENT
Description
Allows the user to copy an element parallel at a input distance with the new element placed with new symbology set for proposed edges of pavement.

NAME: GPKPEP.BA
CALLS: ACBOOK.MA, EP.X
TITLE: GEOPAK 3PC DRAW PROPOSED PARALLEL EDGES OF PAVEMENT
Description:
Activates the Geopak 3PC commands to draw proposed parallel edges of pavement.

NAME: GPKTCT.BA
CALLS: ACBOOK.MA, TCT-CURVES.X
TITLE: GEOPAK DRAW TAPER CURVE TAPER (GEOPAK 2001)
Description
Accesses the Geopak 3PC criteria code to draw taper-curve-tapers in Geopak 2001 or later.

NAME: PAVSHLDR.BA
TITLE: DRAW PROPOSED PAVED SHOULDER LINES
Description
Sets the parameters to draw proposed shoulder lines. The users should use the standard Microstation command to draw.

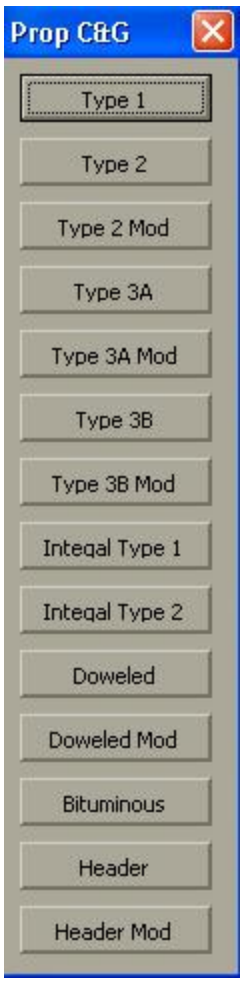
NAME: PPAVSHDR.BA
TITLE: DRAW PROPOSED PAVED SHOULDER LINES BY COPIED PARALLEL ELEMENT
Description
Sets the parameters to draw proposed paved shoulder lines. The users should use the standard Microstation command to draw.

NAME: GRVEP.BA
TITLE: DRAW PROPOSED GRAVEL ROAD EDGES
Description
Sets the parameters to draw proposed gravel road edges. The user needs to use standard Microstation commands to draw.

NAME: PGRVEP.BA
TITLE: DRAW PROP. GRAVEL EDGES OF PAVEMENT BY COPIED PARALLEL ELEMENT
Description
Allows the user to copy an element parallel (key in) with the new element placed with new symbology set for proposed gravel edges of pavement.

NAME: PCANDG.MVBA
TITLE: ACTIVATE DIALOG TO SET SYMBOLOGY TO DRAW PROPOSED CURB AND/OR GUTTER
Description
Use to set the correct level symbology to draw proposed curb and gutter. The user should draw the elements with the normal Microstation commands. Command load a Visual Basic Form (dialog) to set types. A dialog box is display when command is started. Valid curb types are:

Type 1 Type 2 Type 2 Modified Type 3A Type 3A Modifed
Type 3B Modified Integal Type 1 Integal Type 2 Doweled Doweled Modifed
Bituminous Header Header Modified



NAME: CNG.BA
TITLE: SET SYMBOLOGY TO DRAW PROPOSED CURB AND/OR GUTTER
Description
Sets the correct level symbology to draw proposed curb and gutter. The user should draw the elements with the normal Microstation commands. Valid curb types are:
Type 1 Type 2 Type 2 Modified Type 3A Type 3A Modifed
Type 3B Modified Integal Type 1 Integal Type 2 Doweled Doweled Modifed
Bituminous Header Header Modified

NAME: GPKCNG.BA
CALLS: PLAN_DRIVES_CURB.X
TITLE: USED TO ACTIVATE THE GEOPAK 3PC APPLICATION TO DRAW PROPOSED PARALLEL CURB AND GUTTER.
Description
Loads the Geopak 3PC criteria application that allows the user to draw proposed parallel curb and gutter.

NAME: GPKISLAND.BA
CALLS: ACBOOK.MA, ISLAND.X
TITLE: GEOPAK DRAW ISLANDS (SELECTION SET REQ'D)
Description
Accesses the Geopak 3PC criteria code to draw islands in a plan view. Selection set required.

NAME: SIDEWLK.BA
TITLE: DRAW PROPOSED SIDEWALK EDGES
Description
Sets the parameters to draw proposed sidewalk edges. The user needs to use the standard Microstation commands to draw.

NAME: PSIDEWLK.BA
TITLE: DRAW PROPOSED SIDEWALK LINES BY COPIED PARALLEL ELEMENT
Description
Allows the user to copy an element parallel (key in) with the new element placed with new symbology set for proposed sidewalk line.

NAME: UNPAVSH.BA
TITLE: DRAW PROPOSED UNPAVED SHOULDER LINES
Description
Sets the parameters to draw proposed unpaved shoulder lines.

> Note : The user should not use this command to draw in a drawing that will be used in the final plans. It is meant to help the users to place these lines into a 'working' design file for the purpose of drawing proposed templates on cross-section with Geopak input files.

NAME: PUNPAVSH.BA
TITLE: DRAW PROP. UNPAVED SHOULDER LINES BY COPIED PARALLEL ELEMENT
Description
Allows the user to copy an element parallel (keyed in) with the new element placed at the new symbology set for proposed unpaved shoulder lines.

NAME: DRIVE.BA
TITLE: DRAW PROPOSED DRIVEWAYS
Description
Sets the parameters to draw proposed driveways. Proposed driveways have the same settings a proposed edges of pavement (ep.ucm).

NAME: TRANSTX.BA
TITLE: DRAW PROPOSED TRANSPORTATION TEXT
Description
Sets the parameters to place proposed transportation text. ALL Text not related to alignments.

PROPOSED > TRANSPORTATION FEATURES > ALIGNMENTS >

NAME: DESIGNMLSTA.BA
TITLE: DRAW PROPOSED TRANS ALIGNMENTS MAINLINE STATIONS
Description
Set the level symbology to draw proposed mainline alignment stations.

NAME: DESIGNMLABELTX.BA
TITLE: DRAW PROPOSED TRANS ALIGNMENTS MAINLINE LABEL TEXT
Description
Set the level symbology to draw proposed mainline alignment label text.

NAME: CVDDESIGNML.BA
TITLE: DRAW PROPOSED TRANS ALIGNMENTS MAINLINE CURVE DATA TEXT
Description
Set the level symbology to draw proposed mainline alignment curve data text.

NAME: DESIGNMLALT1STA.BA
TITLE: DRAW PROPOSED TRANS ALIGNMENTS MAINLINE ALTERNATE 1 STATIONS
Description
Set the level symbology to draw proposed mainline alignment alternate 1 stations.

NAME: DESIGNMLALT1LABELTX.BA
TITLE: DRAW PROPOSED TRANS ALIGNMENTS MAINLINE ALTERNATE 1 LABEL TEXT
Description
Set the level symbology to draw proposed mainline alignment alternate 1 label text.

NAME: CVDDESIGNMLALT1.BA
TITLE: DRAW PROPOSED TRANS ALIGNMENTS MAINLINE ALTERNATE 1 CURVE DATA TEXT
Description
Set the level symbology to draw proposed mainline alignment alternate 1 curve data text.

NAME: DESIGNMLALT2STA.BA
TITLE: DRAW PROPOSED TRANS ALIGNMENTS MAINLINE ALTERNATE 2 STATIONS
Description
Set the level symbology to draw proposed mainline alignment alternate 2 stations.

NAME: DESIGNMLALT2LABELTX.BA
TITLE: DRAW PROPOSED TRANS ALIGNMENTS MAINLINE ALTERNATE 2 LABEL TEXT
Description
Set the level symbology to draw proposed mainline alignment alternate 2 label text.

NAME: CVDDESIGNMLALT2.BA
TITLE: DRAW PROPOSED TRANS ALIGNMENTS MAINLINE ALTERNATE 2 CURVE DATA TEXT
Description
Set the level symbology to draw proposed mainline alignment alternate 2 curve data text.

NAME: DESIGNMLALT3STA.BA
TITLE: DRAW PROPOSED TRANS ALIGNMENTS MAINLINE ALTERNATE 3 STATIONS
Description
Set the level symbology to draw proposed mainline alignment alternate 3 stations.

NAME: DESIGNMLALT3LABELTX.BA
TITLE: DRAW PROPOSED TRANS ALIGNMENTS MAINLINE ALTERNATE 3 LABEL TEXT
Description
Set the level symbology to draw proposed mainline alignment alternate 3 label text.

NAME: CVDDESIGNMLALT3.BA
TITLE: DRAW PROPOSED TRANS ALIGNMENTS MAINLINE ALTERNATE 3 CURVE DATA TEXT
Description
Set the level symbology to draw proposed mainline alignment alternate 3 curve data text.

NAME: DESIGNSECSTA.BA
TITLE: DRAW PROPOSED TRANS ALIGNMENTS SECONDARY STATIONS
Description
Set the level symbology to draw proposed mainline alignment secondary stations.

NAME: DESIGNSECLABELTX.BA
TITLE: DRAW PROPOSED TRANS ALIGNMENTS SECONDARY LABEL TEXT
Description
Set the level symbology to draw proposed mainline alignment secondary label text.

NAME: CVDDESIGNSEC.BA
TITLE: DRAW PROPOSED TRANS ALIGNMENTS MAINLINE SECONDARY CURVE DATA TEXT
Description
Set the level symbology to draw proposed mainline alignment secondary curve data text.

NAME: DESIGNAUXSTA.BA
TITLE: DRAW PROPOSED TRANS ALIGNMENTS AUXILIARY STATIONS
Description
Set the level symbology to draw proposed mainline alignment auxiliary stations.

NAME: DESIGNAUXLABELTX.BA
TITLE: DRAW PROPOSED TRANS ALIGNMENTS AUXILIARY LABEL TEXT
Description
Set the level symbology to draw proposed mainline alignment auxiliary label text.

NAME: CVDDESIGNAUX.BA
TITLE: DRAW PROPOSED TRANS ALIGNMENTS MAINLINE AUXILIARY CURVE DATA TEXT
Description
Set the level symbology to draw proposed mainline alignment auxiliary curve data text.

NAME: DESIGNLRSTA.BA
TITLE: DRAW PROPOSED TRANS ALIGNMENTS LOCAL ROAD STATIONS
Description
Set the level symbology to draw proposed mainline alignment local road stations.

NAME: DESIGNLRLABELTX.BA
TITLE: DRAW PROPOSED TRANS ALIGNMENTS LOCAL ROAD LABEL TEXT
Description
Set the level symbology to draw proposed mainline alignment local road label text.

NAME: CVDDESIGNLR.BA
TITLE: DRAW PROPOSED TRANS ALIGNMENTS MAINLINE LOCAL ROAD CURVE DATA TEXT
Description
Set the level symbology to draw proposed mainline alignment local road curve data text.

NAME: DESIGNDETOURSTA.BA
TITLE: DRAW PROPOSED TRANS ALIGNMENTS DETOUR STATIONS
Description
Set the level symbology to draw proposed mainline alignment detour stations.

NAME: DESIGNDETOURLABELTX.BA
TITLE: DRAW PROPOSED TRANS ALIGNMENTS DETOUR LABEL TEXT
Description
Set the level symbology to draw proposed mainline alignment detour label text.

NAME: CVDDESIGNDETOUR.BA
TITLE: DRAW PROPOSED TRANS ALIGNMENTS MAINLINE DETOUR CURVE DATA TEXT
Description
Set the level symbology to draw proposed mainline alignment detour curve data text.

NAME: DESIGNDRAINSTA.BA
TITLE: DRAW PROPOSED TRANS ALIGNMENTS DRAINAGE STATIONS
Description
Set the level symbology to draw proposed mainline alignment drainage stations.

NAME: DESIGNDRAINLABELTX.BA
TITLE: DRAW PROPOSED TRANS ALIGNMENTS DRAINAGE LABEL TEXT
Description
Set the level symbology to draw proposed mainline alignment drainage label text.

NAME: CVDDESIGNDRAIN.BA
TITLE: DRAW PROPOSED TRANS ALIGNMENTS MAINLINE DRAINAGE CURVE DATA TEXT
Description
Set the level symbology to draw proposed mainline alignment drainage curve data text.

NAME: PCVDATA.BA
TITLE: SET TEXT SIZE AND PARAMETERS FOR PROPOSED CURVE DATA
Description
Use to set up text size and parameters for placing curve data text for proposed paperline surveys.

PROPOSED > TRANSPORTATION FEATURES > BRIDGES >

NAME: BRIDGE.BA
TITLE: DRAW PROPOSED BRIDGES
Description
Set the level symbology to draw proposed bridges. The user can use any command to draw.

NAME: BOXBRG.BA
TITLE: DRAW PROPOSED BOX BRIDGES
Description
Sets the parameters to draw proposed box bridges.

NAME: BRWINGS.BA
TITLE: PLACE BRIDGE TICS ON CORNERS OF PROPOSED BRIDGES.
Description
This places a tic mark representing the corners of proposed bridges.
Notes:
1. It will not work entirely correct on curved bridges. It will place the tics, but they will not be orientated in the right direction. The user can use modify commands to adjust the tics.
2. The corners of the bridge must be identified in a counter-clockwise direction.
3. The first two corners identified must be along the bridge rail to insure that the symbols are place correctly on a bridge that has skewed abutments.

PROPOSED > SAFETY DEVICES > TOOLS

NAME: GRRT.BA
CALLS: RWDSTY.RSC, CALCULATE.MA
TITLE: DRAW PROPOSED GUARDRAIL (RIGHT)
Description

Sets the parameters to draw proposed guard rail with the post shown on the right side of the rail. The user needs to use standard Microstation commands to draw.

NAME: GRLT.BA
CALLS: RWDSTY.RSC, CALCULATE.MA
TITLE: DRAW PROPOSED GUARDRAIL (LEFT)
Description
Sets the parameters to draw proposed guard rail with the post shown on the left side of the rail. The user needs to use standard Microstation commands to draw.

NAME: GPKGUARDRAIL.BA
CALLS: GUARDRAIL.X
TITLE: LOAD GEOPAK 3PC CRITERIA APPLICATION TO DRAW PROPOSED GUARDRAIL.
Description
Loads the Geopak 3PC criteria application that is used to draw proposed guardrail.

NAME: IA.BA
TITLE: PLACE PROPOSED IMPACT ATTENUATOR SYMBOL
Description
Activates the proposed impact attenuator cell (ia) for placement. The active angle is set interactively so that the cell is placed at a rotation to align its with other features.

NAME: BARRIER.BA
CALLS : RWDSTY.RSC, CALCULATE.MA
TITLE: DRAW PROPOSED PRECAST BARRIERS
Description
Sets the correct level symbology and active patterns to draw proposed precast barriers. The user should draw the elements with the normal Microstation commands.

PROPOSED > SAFETY DEVICES > TEXT

NAME: SAFDEVTX.BA
TITLE: PLACE TEXT FOR PROPOSED TRAFFIC SAFETY DEVICE DESCRIPTIONS
Description
Sets the text parameters to place text descriptions for proposed traffic safety devices. The text size is determined by the current active scale. The user enters text and places it, the command then activates the spin command to allow you to orientate the text with other features.

PROPOSED > DRAINAGE > PIPES/CULVERTS >

NAME: FES.BA
TITLE: PLACE PROPOSED FLARED END SECTION
Description
Activates one of the proposed flared end section cells for placement on the ends of pipes. The cell is placed using the line terminator command using the flared end section cells as the active line terminator cell. The current active scale and pipe size determines which cell is placed. The user must input the size of the flared end section and identify the the pipe line closest to the end of the pipe that they wish to place the cell.

NAME: GPKFES.BA
CALLS: ACBOOK.MA, PLACE_FES.X
TITLE: GEOPAK 3PC PLACE PROPOSED FLARED END SECTIONS IN PLAN VIEW
Description
Activates one of the proposed flared end section cells for placement on the ends of pipes. The active angle is set graphically by identifying the center of the pipe it connects to. The current active scale and pipe size determines the cell that is placed.

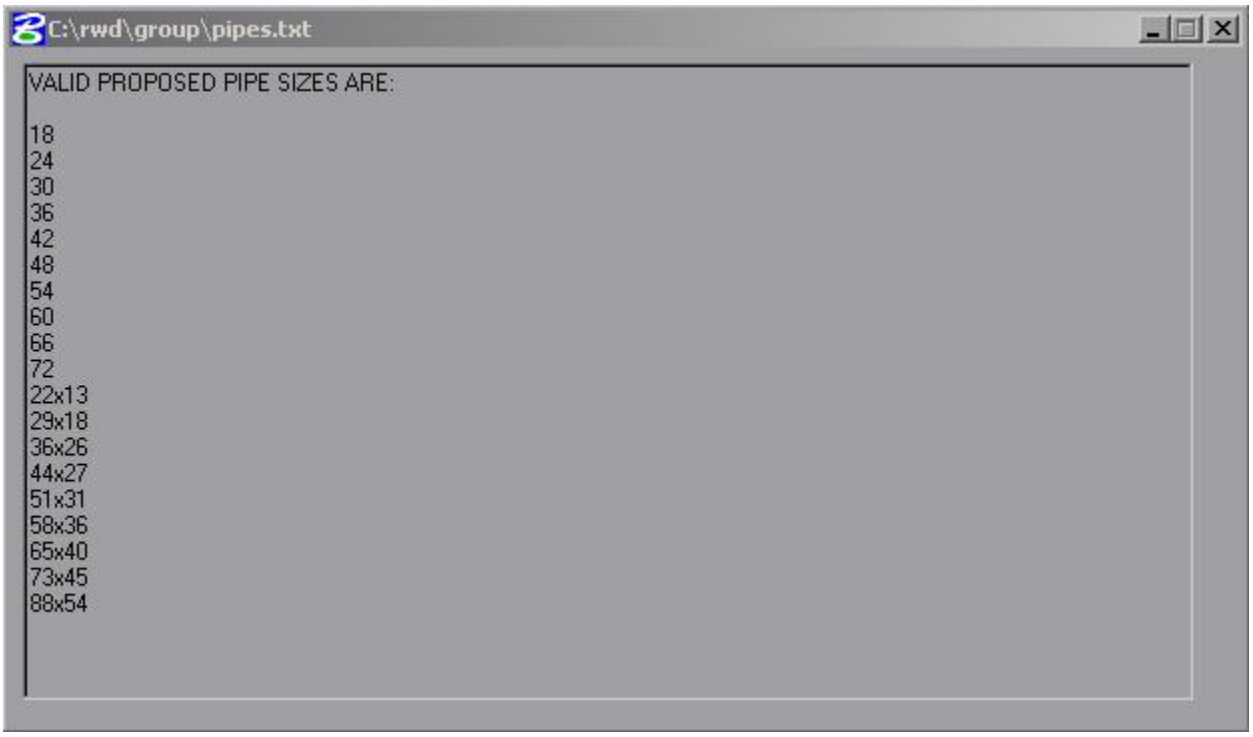
NAME: UDRAIN.BA
CALLS: RWDSTY.RSC, CALCULATE.MA
TITLE: DRAW PROPOSED UNDERDRAIN LINES
Description
Sets the parameters to draw proposed underdrain lines. The user needs to use the standard Microstation command to draw.

NAME: MANHOLE.BA
TITLE: PLACE EXISTING MANHOLE CELL
Description
Activates the existing manhole cell (mhole) for placement. The active angle is set interactively so that the cell is placed at a rotation to align its text with other ground features

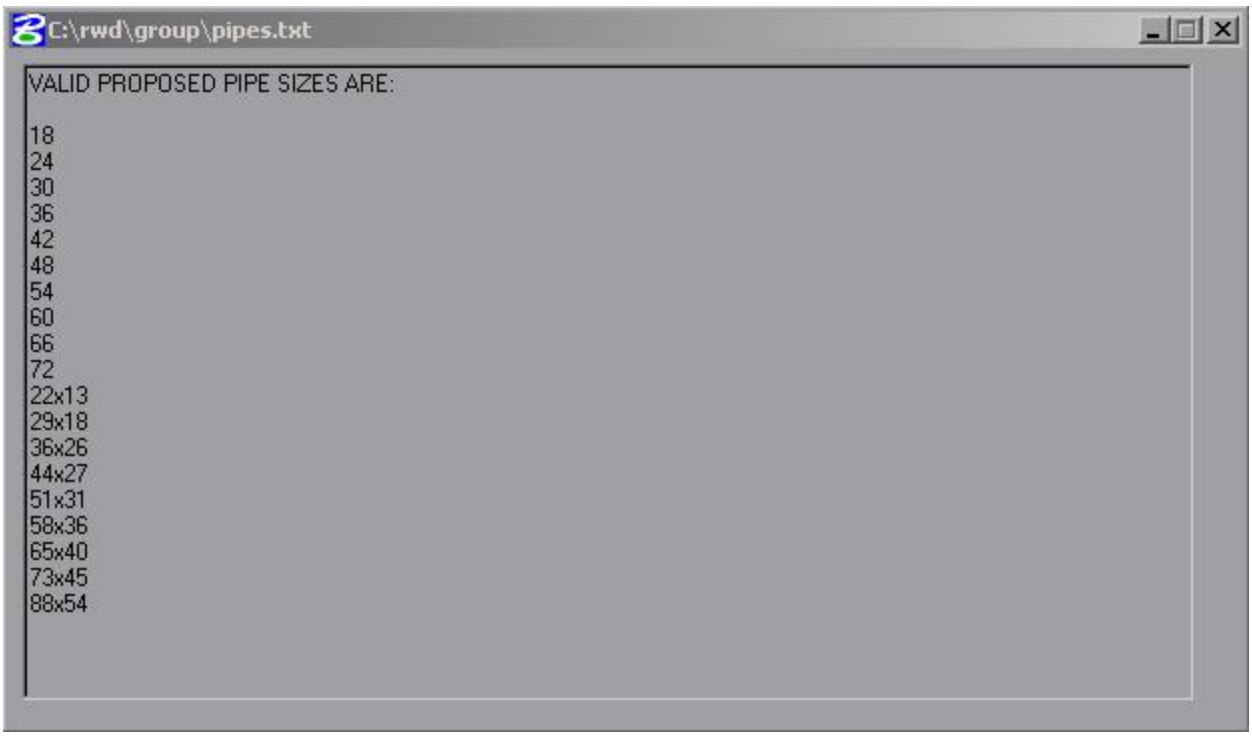
NAME: BOXCULV.BA
TITLE: DRAW PROPOSED BOX CULVERTS
Description
Sets the parameters to draw proposed box culverts.

NAME: PIPES.UCM
CALLS: MNU.UCM, RWDSTY.RSC, CALCULATE.MA, PIPESMSG.BA, PIPES.TXT
TITLE: PLACE CONCRETE PROPOSED PIPES ON DRAINAGE LEVEL
Description
This command is used to place concrete pipes on the drainage levels. It works by prompting the user to enter a pipe size. The pipe sizes should be entered in inches. Arch pipes sizes are entered as (22x13, 29x18, etc.). If an invalid size is entered the command will issue a warning and re-prompt for the pipe size. After the pipe size is entered the active scale is used to test for the proper line style to place. The user can then place this pipe into the design file. Precision

key-ins (xy=, di=, dx=, and dl=) can be used to place the pipe. Then the user can continue placing that pipe size or by hitting (Reset), enter a new pipe size or exit. This command requires the key in tool window, if it is not open the command will open it. If the user presses "?" they can view valid pipe size in a dialog box. The called macro (pipesmsg.ba) displays a file called pipes.txt on the screen as follows:



NAME: PIPESALT.UCM
CALLS: MNU.UCM, RWDSTY.RSC, CALCULATE.MA, PIPESMSG.BA, PIPES.TXT
TITLE: PLACE ALTERNATE PROPOSED PIPES ON DRAINAGE LEVEL
Description
This command is used to place alternate pipes on the drainage levels. It works by prompting the user to enter a pipe size. The pipe sizes should be entered in inches. Arch pipes sizes are entered as (22x13, 29x18, etc.). If an invalid size is entered the command will issue a warning and re-prompt for the pipe size. After the pipe size is entered the active scale is used to test for the proper line style to place. The user can then place this pipe into the design file. Precision key-ins (xy=, di=, dx=, and dl=) can be used to place the pipe. Then the user can continue placing that pipe size or by hitting (Reset), enter a new pipe size or exit. This command requires the key in tool window, if it is not open the command will open it. If the user presses "?" they can view valid pipe size in a dialog box. The called macro (pipesmsg.ba) displays a file called pipes.txt on the screen as follows:



NAME: GPKPIPES.BA
CALLS: ACBOOK.MA, DRAW_PIPES_PLAN.X
TITLE: CALL THE GEOPAK 3PC COMMAND TO DRAW PROPOSED PIPES IN PLAN
Description
This is used to place proposed pipes in a plan view. It call the Geopak 3PC command listed above.

PROPOSED > DRAINAGE > DITCH/STREAM/LAKES >

NAME: PHYDRO.BA
TITLE: PLACE PROPOSED HYDRAULIC FLOW LINE
Description
Set the active parameters to draw directional hydro lines, such as; ditch lines and channel changes. Must draw in correct direction.

NAME: DITPLU.BA
TITLE: PLACE PROPOSED DITCH PLUG CELL
Description
Activates the proposed ditch plug cell for placement. The active angle is set interactively so that the cell is placed at a rotation to align it with a previously placed ditch line.

NAME: SPURDK.BA
TITLE: PLACE SPUR DIKE CELLS
Description
Activates a spur dike cell for placement. The spur dike size and curve direction are selected by key in. Once the proper spur dike is selected the cell is attached to the cursor for placement.

PROPOSED > DRAINAGE > INLETS >

NAME: B9.BA
TITLE: PLACE PROPOSED B-9 INLET CELL
Description
Activates the proposed b9 inlet cell for placement. The cell is placed relative on the drainage level. The user can set the active angle graphically to align the inlet along other features while remaining in the command.

NAME: GI1.BA
TITLE: PLACE PROPOSED GI-1 INLET CELL
Description
Activates the proposed gi1 inlet cell for placement. The cell is placed relative on the drainage level. The user can set the active angle graphically to align the inlet along other features while remaining in the command.

NAME: GI1A.BA
TITLE: PLACE PROPOSED GI-1A INLET CELL
Description
Activates the proposed gi1a inlet cell for placement. The cell is placed relative on the drainage level. The user can set the active angle graphically to align the inlet along other features while remaining in the command.

NAME: JB1.BA
TITLE: PLACE PROPOSED JB-1 JUNCTION BOX CELL
Description
Activates the proposed jb1 junction box cell for placement. The cell is placed relative on the drainage level. The user can set the active angle graphically to align the inlet along other features while remaining in the command.

NAME: JB1A.BA
TITLE: PLACE PROPOSED JB-1A JUNCTION BOX CELL
Description
Activates the proposed jb1a junction box cell for placement. The cell is placed relative on the drainage level. The user can set the active angle graphically to align the inlet along other features while remaining in the command.

NAME: JB2.BA
TITLE: PLACE PROPOSED JB-2 JUNCTION BOX CELL
Description
Activates the proposed jb2 junction box cell for placement. The cell is placed relative on the drainage level. The user can set the active angle graphically to align the inlet along other features while remaining in the command.

NAME: MI1.BA
TITLE: PLACE PROPOSED MI-1 TYPE I, MEDIAN INLET CELL
Description
Activates the proposed mi1 median inlet cell for placement. The cell is placed relative on the drainage level. The user can set the active angle graphically to align the inlet along other features while remaining in the command.

NAME: MI1A.BA
TITLE: PLACE PROPOSED MI-1A TYPE I, MEDIAN INLET CELL
Description
Activates the proposed mi1a median inlet cell for placement. The cell is placed relative on the drainage level. The user can set the active angle graphically to align the inlet along other features while remaining in the command.

NAME: MI1B.BA
TITLE: PLACE PROPOSED MI-1B TYPE I, MEDIAN INLET CELL
Description
Activates the proposed mi1b median inlet cell for placement. The cell is placed relative on the drainage level. The user can set the active angle graphically to align the inlet along other features while remaining in the command.

NAME: MI2.BA
TITLE: PLACE PROPOSED MI-2 TYPE II, MEDIAN INLET CELL
Description
Activates the proposed mi2 median inlet cell for placement. The cell is placed relative on the drainage level. The user can set the active angle graphically to align the inlet along other features while remaining in the command.

NAME: MI2A.BA
TITLE: PLACE PROPOSED MI-2A TYPE II,MEDIAN INLET CELL
Description
Activates the proposed mi2a median inlet cell for placement. The cell is placed relative on the drainage level. The user can set the active angle graphically to align the inlet along other features while remaining in the command.

NAME: MI3.BA
TITLE: PLACE PROPOSED MI-3 MEDIAN INLET FOR BOX CULVERTS CELL

Description
Activates the proposed mi3 median inlet cell for placement. The cell is placed relative on the drainage level. The user can set the active angle graphically to align the inlet along other features while remaining in the command.

NAME: MI4.BA
TITLE: PLACE PROPOSED MI-4 MEDIAN INLET CELL (FLUSH WITH FORESLOPE)
Description
Activates the proposed mi4 median inlet cell for placement. The cell is placed relative on the drainage level. The user can set the active angle graphically to align the inlet along other features while remaining in the command.

NAME: MI4A.BA
TITLE: PLACE PROPOSED MI-4A MEDIAN INLET CELL (FLUSH WITH DITCH PLUG)
Description
Activates the proposed mi4a median inlet cell for placement. The cell is placed relative on the drainage level. The user can set the active angle graphically to align the inlet along other features while remaining in the command.

NAME: SS1.BA
TITLE: PLACE PROPOSED SS-1 STORM SEWER INLET CELL
Description
Activates the proposed ss1 storm sewer inlet cell for placement. The cell is placed relative on the drainage level. The user can set the active angle graphically to align the inlet along other features while remaining in the command.

NAME: SS1A.BA
TITLE: PLACE PROPOSED SS-1A STORM SEWER INLET CELL
Description
Activates the proposed ss1a storm sewer inlet cell for placement. The cell is placed relative on the drainage level. The user can set the active angle graphically to align the inlet along other features while remaining in the command.

NAME: SS1B.BA
TITLE: PLACE PROPOSED SS-1B STORM SEWER INLET CELL
Description
Activates the proposed ss1b storm sewer inlet cell for placement. The cell is placed relative on the drainage level. The user can set the active angle graphically to align the inlet along other features while remaining in the command.

NAME: SS2.BA
TITLE: PLACE PROPOSED SS-2 STORM SEWER INLET CELL
Description
Activates the proposed ss2 storm sewer inlet cell for placement. The cell is placed relative on

the drainage level. The user can set the active angle graphically to align the inlet along other features while remaining in the command.

NAME: SS2BX.BA
TITLE: PLACE PROPOSED SS-2BX STORM SEWER INLET CELL (DOUBLE EXTENSION)
Description
Activates the proposed ss2bx storm sewer inlet cell for placement. The cell is placed relative on the drainage level. The user can set the active angle graphically to align the inlet along other features while remaining in the command.

NAME: SS2LX.BA
TITLE: PLACE PROPOSED SS-2LX STORM SEWER INLET CELL (LEFT EXTENSION)
Description
Activates the proposed ss2lx storm sewer inlet cell for placement. The cell is placed relative on the drainage level. The user can set the active angle graphically to align the inlet along other features while remaining in the command.

NAME: SS2RX.BA
TITLE: PLACE PROPOSED SS-2RX STORM SEWER INLET CELL (RIGHT EXTENSION)
Description
Activates the proposed ss2rx storm sewer inlet cell for placement. The cell is placed relative on the drainage level. The user can set the active angle graphically to align the inlet along other features while remaining in the command.

NAME: SS3.BA
TITLE: PLACE PROPOSED SS-3 STORM SEWER INLET CELL
Description
Activates the proposed ss3 storm sewer inlet cell for placement. The cell is placed relative on the drainage level. The user can set the active angle graphically to align the inlet along other features while remaining in the command.

NAME: SS4.BA
TITLE: PLACE PROPOSED SS-4 STORM SEWER INLET CELL
Description
Activates the proposed ss4 storm sewer inlet cell for placement. The cell is placed relative on the drainage level. The user can set the active angle graphically to align the inlet along other features while remaining in the command.

NAME: GPKINLETS.BA
CALLS: ACBOOK.MA, DRAW_INLETS_PLAN.X
TITLE: CALL THE GEOPAK 3PC COMMAND TO DRAW PROPOSED INLETS IN PLAN
Description
This is used to place proposed inlets in a plan view. It calls the Geopak 3PC command listed above.

PROPOSED > DRAINAGE > EROSION CONTROL >

NAME: SILT.BA
CALLS: RWDSTY.RSC, CALCULATE.MA
TITLE: PLACE PROPOSED SILT FENCE LINE
Description
Place proposed silt fence erosion control lines.

NAME: SUPERSILT.BA
CALLS: RWDSTY.RSC, CALCULATE.MA
TITLE: PLACE PROPOSED SUPER SILT FENCE LINE
Description
Place proposed super silt fence erosion control lines.

NAME: DLINER.BA
TITLE: DRAW AND PATTERN PROPOSED EROSION CONTROL (DITCH LINER)
Description
Sets the parameters to draw and pattern (ap=dliner) proposed erosion control ditch liner. The user needs to use standard Microstation commands to draw and pattern. The patterning dialog is automatically activated.

NAME: FROV.BA
TITLE: SET PARAMETERS TO DRAW AND PATTERN EROSION CONT. (BITUM. ROVING)
Description
Sets the parameters to draw and pattern (ap=frov) erosion control (bituminous roving). User needs to use standard Microstation commands to draw and pattern. The patterning dialog is automatically activated.

NAME: SOLREF.BA
TITLE: DRAW AND PATTERN EROSION CONTROL (SOIL REINFORCED DITCH)
Description
Sets the parameters to draw and pattern (ap=solref) erosion control soil reinforced ditches. The users needs to draw and pattern with the standard Microstation commands.

NAME: PRRP.BA
TITLE: DRAW AND PATTERN PROPOSED EROSION CONTROL (RIP RAP DITCH)
Description
Sets the parameters to draw and pattern (ap=prrp) proposed erosion control rip rap ditches. The user needs to use standard Microstation commands to draw and pattern. The patterning dialog is automatically activated.

NAME: CDITH.BA
TITLE: DRAW PROPOSED EROSION CONTROL (CONCRETE DITCHES)
Description
Sets the correct level symbology and active patterns to draw proposed erosion control (concrete ditches). The uses should draw the elements and pattern with the normal Microstation commands. The patterning dialog is automatically activated.

NAME: RIPRAP_ERO.BA
TITLE: AREA PATTERN FOR RIPRAP
Description
Set the area pattern parameters to allow patterning it with proposed riprap symbols.

NAME: SILTBASIND.BA
TITLE: DRAW PROPOSED TYPE D SILT BASINS
Description
Lets you place Type D Silt Basin Cells. The user is prompted to enter the Dike Length, which ranges from 35 to 200 feet long. Once that is entered the user must enter the depth of the basin, which ranges from 3 to 6 feet deep. The command then activates a cell that corresponds to the entered data. The macro has exited at this point so the user can use normal Microstation commands to change the active angle and location in the dgn. The valid cells for this command are listed below:

SBD35X3 SBD35X4 SBD35X5 SBD35X6 SBD40X3 SBD40X4 SBD40X5 SBD40X6

SBD45X3 SBD45X4 SBD45X5 SBD45X6 SBD50X3 SBD50X4 SBD50X5 SBD50X6

SBD75X3 SBD75X4 SBD75X5 SBD75X6 SBD100X3 SBD100X4 SBD100X5 SBD100X6

SBD125X3 SBD125X4 SBD125X5 SBD125X6 SBD150X3 SBD150X4 SBD150X5 SBD150X6

SBD200X3 SBD200X4 SBD200X5 SBD200X6

Where FIRST NUMBER = DIKE WIDTH, SECOND NUMBER=DEPTH

NAME: SSODP.BA (NOT USED ANYMORE)
TITLE: DRAW AND PATTERN PROPOSED EROSION CONTROL (SOLID SOD DITCHES)
Description
NOT USED. Sets the parameters to draw and pattern (ap=ssodp) for erosion control solid sod ditches. The user needs to use the standard Microstation commands to draw and pattern.

PROPOSED > DRAINAGE > TEXT >

NAME: GPKDRNTX.BA
CALLS: ACBOOK.MA, LABEL_PIPES_PROP_PLAN.X
TITLE: GEOPAK PLACE PROPOSED PIPE LABELS IN PLAN
Description
Accesses the Geopak 3PC criteria code to label proposed pipes in a plan view. A Geopak alignment and selection set is required before running this command. Locate the Geopak alignment name and select the pipes you wish to label.

NAME: DRNTX.BA
TITLE: PLACE TEXT FOR PROPOSED DRAINAGE DESCRIPTIONS
Description
Sets the text parameters to place text for proposed drainage descriptions. The current active scale determines the text size. The user enters text and places it, the command then activates the spin command to allow you to orientate the text with other features.

NAME: LEADERDRAINAGE.BA
TITLE: PLACE A 3 POINT LEADER LINE W/ARROWHEAD
CALLS: CALC.MA, RWDSTY.RSC
Description:
Use to place a 3 point leader line on the appropriate level and symbology. Activates Line Style "arrowline" to generate an arrowhead on the first point of the leaderline. The arrowhead is part of the line string, so it can be moved and modified as a group. Line Style scale is determined initially by the active scale, but once the user has place the initial beging point of the line they have enter a plus (+) or (-) to increase or decrease the line style scale by 25%, therefore changing the arrow head scale at the same time. On the keyboard the plus requires a shift to enter. To add conviencence you can press the = under it, thus not requiring the shift key.

PROPOSED > RIGHT-OF-WAY > LINE/MARKERS

NAME: ROW.BA
TITLE: DRAW PROPOSED RIGHT-OF-WAY LINES
Description
Sets the parameters to draw proposed Right-of-Way lines. The user needs to use standard Microstation commands to draw.

NAME: PROW.BA
CALLS: RWDSTY.RSC, CALCULATE.MA
TITLE: DRAW PROPOSED RIGHT-OF-WAY LINES BY COPY PARALLEL KEY-IN

Description
This command will copy a linear element by a keyed-in parallel distance and change its level and symbology to that needed for proposed Right-of-Way lines.

NAME: ROWMAR.BA (FOR OLDER PROJECTS ONLY)
TITLE: PLACE PROPOSED RIGHT-OF-WAY MARKER SYMBOL CELL
Description
Activates the proposed Right-of-Way marker symbol cell (rowmk) for placement. Use the tool setting dialog to change scale or other cell placement settings.

PROPOSED > RIGHT-OF-WAY > NO-ACCESS/EASEMENT

NAME: NOACC.BA
CALLS: RWDSTY.RSC, CALCULATE.MA
TITLE: DRAW PROPOSED NO ACCESS RIGHT-OF-WAY LINES
Description
Set the parameters to draw and proposed no access Right-of-Way lines. The user needs to use the standard Microstation commands to draw.

NAME: PNOACC.BA
CALLS: RWDSTY.RSC, CALCULATE.MA
TITLE: DRAW PROPOSED PARALLEL NO ACCESS RIGHT-OF-WAY LINES
Description
Sets the parameters to draw proposed parallel no access Right-of-Way lines. The user needs to use standard Microstation commands to draw.

NAME: EASMT.BA
CALLS: RWSSTY.RSC, CALCULATE.MA
TITLE: SET SYMBOLOGY FOR DRAWING R.O.W. EASEMENT LINES
Description
Use to set symbology to draw proposed Right-of-Way easement lines. Use the standard Microstation commands to draw.

PROPOSED > RIGHT-OF-WAY > TEXT

NAME: ROWTX.BA
TITLE: PLACE PROPOSED TEXT FOR RIGHT-OF-WAY DESCRIPTIONS
Description
Sets the parameters to place text for Right-of-Way descriptions. The current active scale

determines the text size. The user enters text and places it, the command then activates the spin command to allow you to orientate the text with other features.

NAME: LEADERROW.BA
TITLE: PLACE A 3 POINT LEADER LINE W/ARROWHEAD
CALLS: CALC.MA, RWDSTY.RSC
Description:
Use to place a 3 point leader line on the appropriate level and symbology. Activates Line Style "arrowline" to generate an arrowhead on the first point of the leaderline. The arrowhead is part of the line string, so it can be moved and modified as a group. Line Style scale is determined initially by the active scale, but once the user has place the initial beging point of the line they have enter a plus (+) or (-) to increase or decrease the line style scale by 25%, therefore changing the arrow head scale at the same time. On the keyboard the plus requires a shift to enter. To add conviencence you can press the = under it, thus not requiring the shift key.

NAME: GPKROWTX.BA
CALLS: ACBOOK.MA, LABEL_ROW_PROP.X
TITLE: GEOPAK PLACE PROPOSED ROW MARKER LABELS IN PLAN
Description
Accesses the Geopak 3PC criteria code to label proposed ROW markers in a plan view. A Geopak alignment and selection set is required before running this command. Locate the Geopak alignment name and select the pipes you wish to label.

PROPOSED > RIGHT-OF-WAY > FENCING

NAME: FENCE.BA
CALLS: RWDSTY.RSC, CALCULATE.MA
TITLE: SET SYMBOLOGY TO DRAW PROPOSED FENCE LINES
Description
Sets symbology to draw proposed fence lines. User needs to use standard Microstation commands to draw.

NAME: SHFENCE.BA
TITLE: DRAW PROPOSED SHORT FENCE LINES
Description
Sets the parameters to draw proposed short fence lines. This command is basically the same as 'fence.ba'. It is used when the user needs to draw a line that is to short for the fence post to display on the a normal length line. The user needs to use the standard Microstation command to draw.

NAME: FENPOS.BA
TITLE: PLACE PROPOSED FENCE POST CELL

Description
Used to place a proposed fence post cell (fpost). The active angle is set graphically based on the orientation of the fence line.

PROPOSED > RIGHT-OF-WAY > REVISIONS

NAME: REVSTA.BA
TITLE: PLACE REVISION STAMP CELL
Description
Activates the revision stamp cell (rev) for placement. The origin of the cell is located in the upper right corner. The active angle is set to zero (0) automatically for ease of placement on a plan sheet.

NAME: STRI.BA
TITLE: PLACE SMALL REVISION TRIANGLE CELLS
Description
Use to place a small revision triangle cell. The cell is placed at a default active angle of 90. If the user keys in aa=# the command will temporarily change the active angle to the key-in. The user must supply the number to go in the triangle. Valid numbers are : 1 - 8

NAME: LTRI.BA
TITLE: PLACE LARGE REVISION TRIANGLE CELLS
Description
Use to place a large revision triangle cell. The cell is place at a default active angle = 0. If the user keys in aa=# then the command will temporarily change the active angle to the key-in the user must hit a reset button before placing the cell. The user must supply the number to go into the triangle. Valid numbers are: 1 - 8

PROPOSED > PROFILES > TOOLS

NAME: PROCELL.UCM
CALLS: MNU.UCM, ASTEST.UCM
TITLE: PLACE USER DEFINED CELL IN PROFILE CELLS > IN PROFILE
Description
Used to place user defined cells in profiles. When started the command displays the vertical and horizontal scale that will be used while placing the cells. The user then identifies with a data point the beginning station reference. This point is usually a point on the bottom grid lines (lower left) of a profile sheet. The user then keys in the beginning station and elevation of that point. This gives the command a point of reference when calculating the locations of the cell. To place the cell the user keys in the new station and elevation of the cell. The cell is then placed

and the user is returned to prompt for placing another cell or reset to exit. The only valid scale rations are (1"=20' and 1"=100'). If the current active scale is not correct the user command will exit.

NAME: DELPROPPRO.BA
TITLE: DELETE PROPOSED PROFILE ELEMENTS (EXCLUDING DRAINAGE)
Description
Use to delete proposed profile elements from a design file. Profile drainage elements are not deleted because they are drawn by the user and cannot be easily redrawn with Geopak. This command does not compress the elements from the file so that you can use undo to get the element back if desired. A undo mark is established prior to deleting the elements to make it easy to undo quickly.

NAME: GPKLBLALIPRO.BA
TITLE: DRAW LOCAL ROAD INTERSECTION LOCATION IN PROFILE
CALLS: ACBOOK.MA, DRAW-ALIGNMENTS-IN-PROFILE.X
Description
Call the Geopak acbook mdl application and the 3PC application "draw-alignments-in-profile.x" to draw the location of local road alignment intersection location in a profile.

NAME: GPKPIPESPROF.BA
CALLS: ACBOOK.MA, DRAW_PIPES_PROFILE.X
TITLE: CALL THE GEOPAK 3PC COMMAND TO DRAW PROPOSED PIPES IN PROFILE
Description
This is used to place proposed pipes in a profile. It calls the Geopak 3PC command listed above

NAME: GPKINLETSPROF.BA
CALLS: ACBOOK.MA, DRAW_INLETS_PROFILE.X
TITLE: CALL THE GEOPAK 3PC COMMAND TO DRAW PROPOSED INLETS IN PROFILE
Description
This is used to place proposed inlets in a profile. It calls the Geopak 3PC command listed above.

NAME: PROINLET.UCM
CALLS: ASTEST.UCM, MNU.UCM
TITLE: PLACE PROPOSED INLETS IN PROFILES (VERTICAL ORIENTATION)
Description
Used to place proposed inlets in profiles (vertical orientation). The user identifies with a data point the beginning station reference. This point is usually a point on the bottom grid lines (lower left) of a profile sheet. The user then keys in the beginning station and elevation of that point. This gives the command a point of reference when calculating the locations of the inlet cell (sspro). To place the cell the user keys in the new station and flow line elevation of the inlet. The cell is temporarily placed at the defined point. The user can then interactively place the height and width graphically or key in of the height of the inlet. The inlet is then placed and the user is returned to prompt for placing another inlet or reset to exit.

The only valid scale ratios are 1"=20' and 1"=100' (1:250 and 1:1000). If the current active scale is not correct the user command will exit.

NAME: PROPIPHZ.UCM
CALLS: MNU.UCM
TITLE: PLACE PROPOSED PIPES IN PROFILES (HORIZONTAL ORIENTATION)
Description
Used to place proposed pipes in profiles (horizontal orientation). The user identifies with a data point the beginning reference point. This point is usually a point on the bottom grid lines (lower left) of a profile sheet. The user then keys in the beginning and ending station and flow-line elevation of the pipe. The command then places a line representing the bottom line of the pipe. The user then keys-in the size of pipe in inches. The command then draws a line representing the top of the pipe. The user is then returned to a prompt for placing another pipe or reset to exit. The only valid scale ratios are 1"=20' and 1"=100' (1:250 and 1:1000). If the current active scale is not correct the user command will exit.

NAME: PROPIPE.UCM
TITLE: PLACE PROPOSED PIPES IN PROFILES (VERTICAL ORIENTATION)
Description
Used to place proposed pipes in profiles (vertical orientation). The user identifies with a data point the beginning station reference. This point is usually a point on the bottom grid lines (lower left) of a profile sheet. The user then keys in the beginning station and elevation of that point. This gives the command a point of reference when calculating the locations of the pipe cell (propip). To place the cell the user keys in the new station and flow line elevation of the pipe. The cell is temporally placed at the defined point. The user can then interactively place the height, width and rotation graphically. The pipe is then placed and the user is returned to prompt for placing another pipe or reset to exit. The only valid scale ratios are 1"=20' and 1"=100' (1:250 and 1:1000).

NAME: PIPEENDP.BA
TITLE: PLACE PIPE END SYMBOLS ON THE END OF TWO PARALLEL LINES FOR EXISTING PIPES IN A PROFILE
CALLS: PIPEEND.MA
Description
The command is designed to place a pipe end symbol on the end of two parallel lines for proposed pipes in a profile. This command only works when you have two individual parallel lines, thus not making it useful for pipes in a plan view. User must identify two lines and the command will create draw a broken pipe end symbol along the two line at a user defined point.

PROPOSED > PROFILES > TEXT

NAME: INLETNOT.BA
TITLE: PLACE PROFILE DRAINAGE NOTE TEXT CELL
Description

Used to place drainage notes for inlets, junction boxes, box culverts, etc. In the profile of a sheet; the cell (inote) is placed at an active angle of ‘0.’ The cell contains enter data fields that must be filled out by the user.

NAME: PROFTX.BA
TITLE: PLACE TEXT FOR PROPOSED PROFILE DESCRIPTIONS
Description
Sets the text parameters for placing text for proposed profile descriptions. The current active scale determines the text size. The user enters text and places it, the command then activates the spin command to allow you to orientate the text with other features.

NAME: PRFDRNTX.BA
TITLE: PLACE TEXT FOR PROPOSED PROFILE DRAINAGE DESCRIPTIONS
Description
Sets the text parameters for placing text for proposed profile drainage description. The current active scale determines the text size. The user enters text and places it, the command then activates the spin command to allow you to orientate the text with other features.

NAME: LEADERPROFILEDRAINAGE.BA
TITLE: PLACE A 3 POINT LEADER LINE W/ARROWHEAD
CALLS: CALC.MA, RWDSTY.RSC
Description:
Use to place a 3 point leader line on the appropriate level and symbology. Activates Line Style "arrowline" to generate an arrowhead on the first point of the leaderline. The arrowhead is part of the line string, so it can be moved and modified as a group. Line Style scale is determined initially by the active scale, but once the user has place the initial beging point of the line they have enter a plus (+) or (-) to increase or decrease the line style scale by 25%, therefore changing the arrow head scale at the same time. On the keyboard the plus requires a shift to enter. To add conviencence you can press the = under it, thus not requiring the shift key.

NAME: LEADERPROFILES.BA
TITLE: PLACE A 3 POINT LEADER LINE W/ARROWHEAD
CALLS: CALC.MA, RWDSTY.RSC
Description:
Use to place a 3 point leader line on the appropriate level and symbology. Activates Line Style "arrowline" to generate an arrowhead on the first point of the leaderline. The arrowhead is part of the line string, so it can be moved and modified as a group. Line Style scale is determined initially by the active scale, but once the user has place the initial beging point of the line they have enter a plus (+) or (-) to increase or decrease the line style scale by 25%, therefore changing the arrow head scale at the same time. On the keyboard the plus requires a shift to enter. To add conviencence you can press the = under it, thus not requiring the shift key.

PROPOSED > FORM GRADES >

NAME: FGTX.BA
TITLE: PLACE TEXT FOR FORM GRADES
Description
Sets the text symbology to place text for form grades.

NAME: FGLNLINE.BA
TITLE: SET SYMBOLOGY TO DRAW FORM GRADE LANE LINES
Description
Sets the symbology to draw from grade lane lines. These are the lines usually representing breaks in slope of pavement.

NAME: PFG.BA
TITLE: SET SYMBOLOGY TO DRAW PARALLEL FORM GRADE LANE LINES
Description
Sets the symbology to draw parallel from grade lane lines. Uses the copy parallel command using the "use active attributes" option to create the new lines with standard symbology.

NAME: FGELEVLBL.BA
TITLE: SET SYMBOLOGY TO DRAW PROPOSED FORM GRADE ELEVATION LABELING LINES AND TEXT
Description
Sets the symbology to draw proposed form grade elevation flag elements and text. The user needs to use standard Microstation commands to draw.

NAME: FGSLOPELBL.BA
TITLE: SET SYMBOLOGY TO DRAW PROPOSED FORM GRADE SLOPE LABELING LINES AND TEXT
Description
Sets the symbology to draw proposed form grade slope labeling lines and text. The user needs to use standard Microstation commands to draw.

NAME: GPKFORMGRADES.BA
TITLE: DRAW FORM GRADES FROM GEOPAK SHAPES/TIN
CALLS: ACBOOK.MA, PLACE_FORM_GRADES.X
Description
Call the Geopak acbook mdl application and the 3PC application "place_form_grades.x" to draw form grades in design file from shapes and tin.

PROPOSED > TRAFFIC CONTROL > TOOLS

NAME: DRUM.BA
TITLE: DRAW PROPOSED DRUMS
Description
Place free standing plastic drum cells. User must select placement level, data pt for construction, reset for operational.

NAME: DRUMPLAC.BA
CALLS: CELLALNG.MA
TITLE: DRAW PROPOSED DRUMS ALONG ELEMENT
Description
Place free standing plastic drum cells along an element. User must input spacing and select the placement level.

NAME: TCPBARRIER.BA
CALLS: RWDSTY.RSC, CALCULAT.MA
TITLE: DRAW PROPOSED TRAFFIC CONTROL BARRIERS
Description
Draw barriers used in traffic control plans. User must select placement level, data pt for construction, reset for operational. A line style is activated (pcast) that lets you draw the barrier.

NAME: BARRICADE.BA
CALLS: RWDSTY.RSC, CALCULAT.MA
TITLE: DRAW PROPOSED BARRICADES
Description
Create barricades used in traffic control plans. Select the TCP level and used any Microstation linear command to draw a barricade. A line style is activated (barricade) that lets you draw the barricade. It is recommend that you draw the barricade a length that is a multiple of 4 or 6 feet standard increment.

NAME: FLARPN.BA
CALLS: NONE
TITLE: PLACE FLASHING ARROW PANEL
Description
Use to place a traffic control flashing arrow panel.

NAME: SQARPN.BA
TITLE: PLACE SEQUENCING ARROW PANEL
Description
Place traffic control sequencing arrow panel cell.

NAME: BLIGHT.BA
TITLE: PLACE TYPE "B" WARNING LIGHT
Description

Place Type "B" warning light cell. User must select which level to place light (d) construction (r) operational.

PROPOSED > TRAFFIC CONTROL > TEXT

NAME: SIGNTX.BA
TITLE: PLACE TEXT FOR PROPOSED SIGN AND SIGNAL DESCRIPTIONS
Description
Sets the text parameters to place text for proposed sign and signal descriptions. The current active scale determines the text size. The user enters text and places it, the command then activates the spin command to allow you to orientate the text with other features.

NAME: TCPCONTX.BA
TITLE: PLACE TEXT FOR TRAFFIC CONTROL CONSTRUCTION DESCRIPTIONS
Description
Sets the text parameters to place text for traffic control construction descriptions. The current active scale determines the text size. The user enters text and places it, the command then activates the spin command to allow you to orientate the text with other features.

NAME: TCPOPTX.BA
TITLE: PLACE TEXT FOR TRAFFIC CONTROL OPERATIONAL DESCRIPTIONS
Description
Sets the text parameters to place text for traffic control operational descriptions. The current active scale determines the text size. The user enters text and places it, the command then activates the spin command to allow you to orientate the text with other features.

PROPOSED > PAVEMENT MARKING > LEGEND >

NAME: THRU.BA
TITLE: PLACE THRU LEGEND STRIPE CELL
Description
Use to place a thru legend marking cell. The cell is placed at an active scale of 1. The active angle is set graphically prior to placing the cell.

NAME: ONLY.BA
TITLE: PLACE ONLY LEGEND MARKING CELL
Description
Use to place an ‘only’ legend marking cell. The cell is placed at an active scale of 1. The active angle is set graphically prior to placing the cell.

NAME: THRUO.BA
TITLE: PLACE COMBINATION THRU AND ONLY LEGEND STRIPE CELL

Description
Use to place a combination thru and only legend marking cell. The cells placed at an active scale of 1. The active angle is set graphically prior to placing the cell.

NAME: COMBLT.BA
TITLE: PLACE COMBINATION THRU AND LEFT LEGEND STRIPE
Description
Use to place a combination thru and left legend marking cell. The cell is placed at an active scale of 1. The active angle is set graphically prior to placing the cell.

NAME: COMBRT.BA
TITLE: PLACE COMBINATION THRU AND RIGHT LEGEND STRIPE
Description
Use to place a combination thru and left legend marking cell. The cell is placed at an active scale of 1. The active angle is set graphically prior to placing the cell.

NAME: TURNLT.BA
TITLE: PLACE TURN LEFT LEGEND STRIPE CELL
Description
Use to place a turn left legend marking cell. The cell is placed at an active scale of 1. The active angle is set graphically prior to placing the cell.

NAME: TRNLTO.BA
TITLE: PLACE COMBINATION TURN LEFT AND ONLY LEGEND STRIPE CELL
Description
Activates the combination turn left and only legend marking cell (trnlto) for placement. The active scale is automatically set to 100 so the cell is placed at the correct size.

NAME: TURNRT.BA
TITLE: PLACE TURN RIGHT LEGEND STRIPE CELL
Description
Use to place a turn right legend marking cell. The cell is placed at an active scale of 1. The active angle is set graphically prior to placing the cell.

NAME: TRNRTO.BA
TITLE: PLACE COMBINATION TURN RIGHT AND ONLY LEGEND STRIPE CELL
Description
Use to place a combination turn right and only legend marking cell. The cell is placed at an active scale of 1. The active angle is set graphically prior to placing the cell.

NAME: TRNBOTH.BA
TITLE: PLACE DUAL TURN LEGEND STRIPE CELL
Description

Use to place a dual turn legend marking cell. The cell is placed at an active scale of 1. The active angle is set graphically prior to placing the cell.

NAME: RRXL.BA
TITLE: PLACE RAILROAD CROSSING LEGEND MARKING CELLS
Description
Use to place railroad crossing legend marking cells. The cell is placed at an active scale of 1. The active angle is set graphically prior to placing the cell.

NAME: AHEAD.BA
TITLE: PLACE AHEAD LEGEND MARKING CELLS
Description
Use to place AHEAD legend marking cells. The cell is placed at an active scale of 1. The active angle is set graphically prior to placing the cell.

NAME: EXIT.BA
TITLE: PLACE EXIT LEGEND MARKING CELLS
Description
Use to place EXIT legend marking cells. The cell is placed at an active scale of 1. The active angle is set graphically prior to placing the cell.

NAME: LANE.BA
TITLE: PLACE LANE LEGEND MARKING CELLS
Description
Use to place LANE legend marking cells. The cell is placed at an active scale of 1. The active angle is set graphically prior to placing the cell.

NAME: LEFT.BA
TITLE: PLACE LEFT LEGEND MARKING CELLS
Description
Use to place LEFT legend marking cells. The cell is placed at an active scale of 1. The active angle is set graphically prior to placing the cell.

NAME: RIGHT.BA
TITLE: PLACE RIGHT LEGEND MARKING CELLS
Description
Use to place RIGHT legend marking cells. The cell is placed at an active scale of 1. The active angle is set graphically prior to placing the cell.

NAME: SCHOOL.BA
TITLE: PLACE SCHOOL LEGEND MARKING CELLS
Description
Use to place SCHOOL legend marking cells. The cell is placed at an active scale of 1. The active angle is set graphically prior to placing the cell.

NAME: SIGNAL.BA
TITLE: PLACE SIGNAL LEGEND MARKING CELLS
Description
Use to place SIGNAL legend marking cells. The cell is placed at an active scale of 1. The active angle is set graphically prior to placing the cell.

NAME: STOP.BA
TITLE: PLACE STOP LEGEND MARKING CELLS
Description
Use to place STOP legend marking cells. The cell is placed at an active scale of 1. The active angle is set graphically prior to placing the cell.

NAME: TURN.BA
TITLE: PLACE TURN LEGEND MARKING CELLS
Description
Use to place TURN legend marking cells. The cell is placed at an active scale of 1. The active angle is set graphically prior to placing the cell.

NAME: YIELD.BA
TITLE: PLACE YEILD LEGEND MARKING CELLS
Description
Use to place YIELD legend marking cells. The cell is placed at an active scale of 1. The active angle is set graphically prior to placing the cell.

NAME: BIKETRAIL.BA
TITLE: PLACE BIKE TRAIL LEGEND MARKING CELLS
Description
Use to place BIKETRAIL legend marking cells. The cell is placed at an active scale of 1. The active angle is set graphically prior to placing the cell.

NAME: YIELDLINE.BA
TITLE: PLACE YIELD LINE MARKING
Description
Use to place YIELD LINE Marking line style. The line style is placed at an line style scale of 1.

PROPOSED > PAVEMENT MARKING > RAISED MARKERS >

NAME: RCMK.BA
CALLS: CELLALNG.MA
TITLE: PLACE RED-CLEAR RAISED MARKERS CELL ALONG ELEMENT
Description
Activates the red-clear raised marker cell (redmar) for placement. A MDL command is called to place the active cell along a linear element. Cells are placed tangent along curve elements.

NAME: DRCMK.BA
CALLS: CELLALNG.MA
TITLE: PLACE DOUBLE RED-CLEAR RAISED MARKERS CELL ALONG ELEMENT
Description
Activates the double red-clear raised marker cell (dblrmk) for placement. A MDL command is called to place the active cell along a linear element. Cells are placed tangent along curve elements.

NAME: 1WYMK.BA
TITLE: PLACE ONE-WAY YELLOW RAISED MARKERS
Description
Use to place one-way yellow raised markers (1wymk). The MDL command 'construct cell along' is called to help place the markers along a linear element. The command places cells tangent to the element, even in curves.

NAME: TWYMK.BA
CALLS: CELLALNG.MA
TITLE: PLACE TWO-WAY YELLOW RAISED MARKERS CEL
Description
Activates the two-way yellow raised marker cell (twtmar) for placement along linear elements. A MDL command is called that places cells along elements. The cells are placed tangent to arc elements.

NAME: DBLYMK.BA
CALLS:CELLALNG.MA
TITLE: PLACE DOUBLE YELLOW MARKERS ALONG ELEMENTS
Description
Activates the double yellow raised marker cell (dblymk) for placement. A MDL command is called to place the active cell along a linear element. Cells are placed tangent along curve elements.

NAME: 1WCMK.BA
TITLE: PLACE ONE-WAY CLEAR RAISED MARKERS
Description
Use to place one-way clear raised markers (1wcmk). The MDL command 'construct cell along' is called to help place the markers along a linear element. The command places cells tangent to the element, even in curves.

NAME: TWCMK.BA
CALLS: CELLALNG.MA
TITLE: PLACE TWO-WAY CLEAR RAISED MARKERS CELL
Description
Activates the two-way clear raised marker cell (twcmar) for placement along linear elements. A

MDL command is called that places cells along elements. The cells are placed tangent to arc elements.

NAME: YCMAR.BA
CALLS: CELLALNG.MA
TITLE: PLACE YELLOW CLEAR RAISED MARKERS
Description
Use to place yellow clear raised marker cells (ycmar). The MDL command ‘construct cell along’ is called to help place the markers along linear elements. The command places the cells tangent to the element, even in curves.

NAME: CSMK.BA
CALLS: CELLALNG.MA
TITLE: PLACE CHIP SEAL RAISED MARKERS
Description
Use to place chip seal raised marker cells (csmk). The MDL command ‘construct cell along’ is called to help place the markers along a linear element. The command places the cells tangent to the element, even in curves. Chip seal markers are used on SBST and DBST surfaces

NAME: WJIGMK.BA
CALLS: CELLALNG.MA
TITLE: PLACE TYPE A NON-REFLECTIVE WHITE JIGGLE MARKERS
Description
Use to place type a non-reflective white jiggle marker cells (wjigmk). The MDL command ‘construct cell along’ is called to help place the markers along a linear element. The command places the cells tangent to the element, even in curves.

NAME: YJIGMK.BA
CALLS: CELLALNG.MA
TITLE: PLACE TYPE AY NON-REFLECTIVE YELLOW MARKERS
Description
Use to place type AY non-reflective yellow jiggle marker cells (yjigmk) the MDL command ‘construct cell along’ is called to help place the markers along linear elements. The command places the cells tangent to the element, even in curves.

PROPOSED > PAVEMENT MARKING > GEOPAK TOOLS

NAME: GPK5LANE.BA
CALLS: ACBOOK.MA, STRIPE_5_LANE.X
TITLE: GEOPAK STRIPE 5 LANE SECTION
Description
Accesses the Geopak 3PC criteria code striping a 5 lane section of road. Since this does not add a special element attribute to the elements drawn, you cannot calculate quantities using the D&C manager unless you use the "SET" command on each element it draws.

NAME: GPKRPM.BA
CALLS: ACBOOK.MA, PLACE_RPM.X
TITLE: GEOPAK PLACE RAISED PAVEMENT MARKERS
Description
Accesses the Geopak 3PC criteria code for placing raised pavement markers . A Geopak alignment is required before running this command.

PROPOSED > PAVEMENT MARKING > TEXT >

NAME: PMTX.BA
TITLE: PLACE TEXT FOR PAVEMENT MARKING DESCRIPTIONS
Description
Set the text parameters to place text for pavement marking descriptions (no markers), the text size is determined by the current active scale. The user enters text and places it, the command then activates the spin command to allow you to orientate the text with other features.

NAME: PMKTX.BA
TITLE: PLACE TEXT FOR PAVEMENT MARKING DESCRIPTIONS
Description
Set the text parameters to place text for pavement marking descriptions for raised markers, the text size is determined by the current active scale. The user enters text and places it, the command then activates the spin command to allow you to orientate the text with other features.

NAME: CIRCLEPM.BA
TITLE: PLACE CIRCLE WITH NUMBER TEXT ON PROPOSED PAVEMENT MARKING TEXT LEVEL
Description
Use to place a circle with number text on the proposed pavement marking text level. The user is asked to input a number to determine the proper cell to place that contains that number. Valid numbers are: 1 to 50.

NAME: LEADERPMRAISEDMARKER.BA
TITLE: PLACE A 3 POINT LEADER LINE W/ARROWHEAD
CALLS: CALC.MA, RWDSTY.RSC
Description:
Use to place a 3 point leader line on the appropriate level and symbology. Activates Line Style "arrowline" to generate an arrowhead on the first point of the leaderline. The arrowhead is part of the line string, so it can be moved and modified as a group. Line Style scale is determined initially by the active scale, but once the user has place the initial beging point of the line they have enter a plus (+) or (-) to increase or decrease the line style scale by 25%, therefore changing the arrow head scale at the same time. On the keyboard the plus requires a shift to enter. To add conviencence you can press the = under it, thus not requiring the shift key.

NAME: LEADERPMSTRIPE.BA
TITLE: PLACE A 3 POINT LEADER LINE W/ARROWHEAD
CALLS: CALC.MA, RWDSTY.RSC
Description:
Use to place a 3 point leader line on the appropriate level and symbology. Activates Line Style "arrowline" to generate an arrowhead on the first point of the leaderline. The arrowhead is part of the line string, so it can be moved and modified as a group. Line Style scale is determined initially by the active scale, but once the user has place the initial beging point of the line they have enter a plus (+) or (-) to increase or decrease the line style scale by 25%, therefore changing the arrow head scale at the same time. On the keyboard the plus requires a shift to enter. To add conviencence you can press the = under it, thus not requiring the shift key.

PROPOSED > CROSS SECTIONS > STRUCTURE

NAME: XSPFINGRADE.BA
TITLE: SET PARAMETERS FOR PROPOSED X-SECTION FINISHED GRADE ELEMENTS
Description
Sets the parameters to draw proposed cross section finished grade elements. The user needs to use the standard Microstation commands to draw.

NAME: XSPPAVT.BA
TITLE: SET PARAMETERS FOR PROPOSED X-SECTION PAVEMENT/SUB-BASE ELEMENTS
Description
Sets the parameters to draw proposed cross section pavement/sub-base elements. The user needs to use the standard Microstation commands to draw.

NAME: XSPLEVEL.BA
TITLE: SET PARAMETERS FOR PROPOSED X-SECTION LEVELING COURSE ELEMENTS
Description
Sets the parameters to draw proposed cross section leveling course elements. The user needs to use the standard Microstation commands to draw.

NAME: XSPDRIVEWAY.BA
TITLE: SET PARAMETERS FOR PROPOSED X-SECTION DRIVEWAY ELEMENTS
Description
Sets the parameters to draw proposed cross section driveway elements. The user needs to use the standard Microstation commands to draw.

NAME: XSPCG.BA
TITLE: SET PARAMETERS FOR PROP. X-SECTION CURB AND GUTTER ELEMENTS
Description

Sets the parameters to draw proposed cross section curb and gutter elements. The user needs to use the standard Microstation commands to draw.

NAME: XSPMEDPAV.BA
TITLE: SET PARAMETERS FOR PROP. X-SECTION MEDIAN ISLAND PAVEMENT ELEMENTS
Description
Sets the parameters to draw proposed cross section median pavement elements. The user needs to use the standard Microstation commands to draw.

PROPOSED > CROSS SECTIONS > DRAINAGE

NAME: XSDITCH.BA
TITLE: SET PARAMETERS FOR PROP. X-SECTION PAVED DITCH ELEMENTS
Description
Sets the parameters to draw proposed cross section paved ditch elements. The user needs to use the standard Microstation commands to draw.

NAME: XSPDRAIN.BA
TITLE: SET PARAMETERS FOR PROP. X-SECTION DRAINAGE ELEMENTS
Description
Sets the parameters to draw proposed cross section drainage elements. The user needs to use the standard Microstation commands to draw.

PROPOSED > CROSS SECTIONS > UNDERCUT/EXCAVATION

NAME: XSPUNDERCUT.BA
TITLE: SET PARAMETERS FOR PROPOSED X-SECTION UNDERCUT LINE ELEMENTS
Description
Sets the parameters to draw proposed cross section undercut line elements. The user needs to use the standard Microstation commands to draw.

NAME: XSPEXCLIMIT.BA
TITLE: SET PARAMETERS FOR PROP. X-SECT. EXCAVATION LIMITS ELEMENTS (AREA A)
Description
Sets the parameters to draw proposed cross section excavation limits elements (Area A). The user needs to use the standard Microstation commands to draw.

NAME: XSPEXCLIMIT1.BA
TITLE: SET PARAMETERS FOR PROP. X-SECT. EXCAVATION LIMITS ELEMENTS (AREA B)
Description
Sets the parameters to draw proposed cross section excavation limits elements (Area B). The user needs to use the standard Microstation commands to draw.

PROPOSED > CROSS SECTIONS > GRANULAR MATERIAL

NAME: XSPGRAN.BA
TITLE: SET PARAMETERS FOR PROP. X-SECTION GRANULAR MATERIAL ELEMENTS (ALL TYPES)
Description
Sets the parameters to draw proposed cross section granular material elements (All Types). The user needs to use the standard Microstation commands to draw.

NAME: XSPGRANB.BA
TITLE: SET PARAMETERS FOR PROP. X-SECTION GRANULAR MATERIAL ELEMENTS (TYPE B)
Description
Sets the parameters to draw proposed cross section granular material elements (Type B). The user needs to use the standard Microstation commands to draw.

NAME: XSPGRANC.BA
TITLE: SET PARAMETERS FOR PROP. X-SECTION GRANULAR MATERIAL ELEMENTS (TYPE C)
Description
Sets the parameters to draw proposed cross section granular material elements (Type C). The user needs to use the standard Microstation commands to draw.

PROPOSED > CROSS SECTIONS > PLAN VIEW

NAME: XSPLANBUTT.BA
TITLE: SET PARAMETERS FOR PROP. X-SECTION PLAN BUTT SECTION ELEMENTS
Description
Sets the parameters to draw proposed cross section plan butt section elements. The user needs to use the standard Microstation commands to draw.

NAME: XSPPVDITCH.BA
TITLE: SET PARAMETERS FOR PROP. X-SECTION PLAN PAVED DITCH LINE ELEMENTS
Description
Sets the parameters to draw proposed cross section plan ditch line elements. The user needs to use the standard Microstation commands to draw.

NAME: XSPLANFACEIG.BA
TITLE: SET PARAMETERS FOR PROP. X-SECTION PLAN FACE OF ISLAND GUTTER ELEMENTS
Description
Sets the parameters to draw proposed cross section plan face of island gutter elements. The user needs to use the standard Microstation commands to draw.

NAME: XSPLANPATTLN.BA
TITLE: SET PARAMETERS FOR PROP. X-SECTION PLAN PATTERN LINE ELEMENTS
Description
Sets the parameters to draw proposed cross section plan pattern line elements. The user needs to use the standard Microstation commands to draw.

NAME: XSPLANXOVER.BA
TITLE: SET PARAMETERS FOR PROP. X-SECTION PLAN CROSS OVER LINE ELEMENTS
Description
Sets the parameters to draw proposed cross section plan cross over line elements. The user needs to use the standard Microstation commands to draw.

NAME: XSPLANCLEARZONE.BA
TITLE: SET PARAMETERS FOR PROP. X-SECTION PLAN CLEAR ZONE LINE ELEMENTS
Description
Sets the parameters to draw proposed cross section plan clear zone line elements. The user needs to use the standard Microstation commands to draw.

PROPOSED > CROSS SECTIONS > CONTROLS

NAME: XSPOVRLAY.BA
TITLE: SET PARAMETERS FOR PROP. X-SECTION CONTROL POINTS FOR OVERLAY ELEMENTS
Description
Sets the parameters to draw proposed cross section control points for overlay elements. The user needs to use the standard Microstation commands to draw.

NAME: XSFORMGD.BA
TITLE: SET PARAMETERS FOR PROP. X-SECTION FORM GRADE ELEV. CONTROL ELEMENTS
Description
Sets the parameters to draw proposed lines for form grade elevations controls. The user needs to use the standard Microstation commands to draw.

NAME: XSMULTI.BA
TITLE: SET PARAMETERS FOR PROP. X-SECTION MULTI LINE CONTROL ELEMENTS
Description
Sets the parameters to draw proposed multi-line elements. The user needs to use the standard Microstation commands to draw.

NAME: XSDITCH.BA
TITLE: SET PARAMETERS FOR PROP. X-SECTION DITCH CONTROL ELEMENTS
Description
Sets the parameters to draw proposed ditch control elements. The user needs to use the standard Microstation commands to draw

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NAME: XSPROW.BA
TITLE: SET PARAMETERS FOR PROP. X-SECTION RIGHT-OF-WAY ELEMENTS
Description

Sets the parameters to draw proposed cross section Right-of-Way elements. The user needs to use the standard Microstation commands to draw.

PROPOSED > CROSS SECTIONS > TEXT

NAME: XSPFINGRADETX.BA
TITLE: SET TEXT PARAMETERS FOR PROPOSED X-SECTION FINISHED GRADE ELEMENTS
Description
Sets the parameters to place text for proposed cross section ground line elements. The user needs to use the standard Microstation commands to draw.

NAME: XSSLOPETX.BA
TITLE: SET TEXT PARAMETERS FOR PROP. X-SECTION SLOPES
Description
Sets the text parameters to draw proposed cross section slopes. The user needs to use the standard Microstation commands to draw.

NAME: XSSHEWAREATX.BA
TITLE: SET TEXT PARAMETERS FOR PROP. X-SECTION SHEET EARTHWORK AREAS
Description
Sets the text parameters to draw proposed cross section sheet earthwork areas. The user needs to use the standard Microstation commands to draw.

NAME: XSSHEWVOLTX.BA
TITLE: SET TEXT PARAMETERS FOR PROP. X-SECTION SHEET EARTHWORK VOLUMES
Description
Sets the text parameters to draw proposed cross section sheet earthwork volumes. The user needs to use the standard Microstation commands to draw.

PROPOSED > CROSS SECTIONS > DELETE TOOL

NAME: DELPXS.BA
TITLE: AUTOMATICALLY DELETE PROPOSED CROSS SECTION TEMPLATES
Description
Use to automatically delete most of the proposed template elements from a Geopak Cross-Section Design File.

This command saves you time because you do not have to worry about setting levels, turning levels on and off, and running through all the commands required to clean out the proposed templates.

This command WILL NOT delete the following items:

Proposed Drainage Elements
Proposed R.O.W. Elements
The Geopak Cross Section Cell
All Existing Cross Section Elements

When you use this command you will be warned that you are about to delete most of your proposed templates in the design file. If you do not want to do this you have the chance to exit the command. Then the command will ask you to give a data point to delete. You are given one more chance to Reset and Exit. If you accept with a Data Point it will do the delete. The command will also delete the older level numbers.

WARNING:
This command will compress the design file. You cannot use a undo command to get back any elements.

Version Info: The current version of this file will only run on version Microstation 8.5 or later.

PROPOSED > TYPICAL SECTIONS

NAME: TYBKBONE.BA
TITLE: DRAW TYPICAL SECTION BACKBONES (E.P. TO E.P.)
Description
Allows the user to draw typical section backbones. A beginning point is identified and the lines are drawn by user input of distance, a negative or positive slope (percentage), and a direction (either left or right). Each new line is drawn at the end of each previously placed line unless user resets to start over with a new beginning point or another reset to exit.

NAME: TYPLTBKB.BA
TITLE: DRAW TYPICAL SECTION BACKBONES (LEFT OF E.P.)
Description
Allows the user to draw typical section backbones. A beginning point is identified and the lines are drawn by user input of distance, a negative or positive slope (percentage), and a direction (either left or right). Each new line is drawn at the end of each previously placed line unless user resets to start over with a new beginning point or another reset to exit.

NAME: TYPRTBKB.BA
TITLE: DRAW TYPICAL SECTION BACKBONES (RIGHT OF E.P.)
Description
Allows the user to draw typical section backbones. A beginning point is identified and the lines are drawn by user input of distance, a negative or positive slope (percentage), and a direction (either left or right). Each new line is drawn at the end of each previously placed line unless user resets to start over with a new beginning point or another reset to exit.

NAME: BKBONE.BA
TITLE: DRAW PROPOSED TYPICAL SECTIONS (E.P. TO E.P.)
Description
Sets the standard symbology needed to draw proposed typical section backbones from (E.P. to E. P.).

NAME: LTBKBONE.BA
TITLE: DRAW PROPOSED TYPICAL SECTION BACKBONES (LEFT SIDE)
Description
Set the parameters to draw proposed typical section backbones on the left side of pavement edges.

NAME: RTBKBONE.BA
TITLE: DRAW PROPOSED TYPICAL SECTION BACKBONES (RIGHT SIDE)
Description
Set the parameters to draw proposed typical section backbones on the right side of the edge of pavement. The users needs to use standard Microstation commands to draw.

NAME: TYPPSUB.BA
TITLE: DRAW TYPICAL SECTION BACKBONES (PROPOSED SUBBASE LINES)
Description
Allows the user to draw typical section subgrade lines. A beginning point is identified and the lines are drawn by user input of distance, a negative or positive slope (percentage), and a direction (either left or right). Each new line is drawn at the end of each previously placed line unless user resets to start over with a new beginning point or another reset to exit.

NAME: TYPXSUB.BA
TITLE: DRAW TYPICAL SECTION BACKBONES (EXISTING SUBBASE LINES)
Description
Allows the user to draw typical section subgrade lines. A beginning point is identified and the lines are drawn by user input of distance, a negative or positive slope (percentage), and a direction (either left or right). Each new line is drawn at the end of each previously placed line unless user resets to start over with a new beginning point or another reset to exit.

NAME: PSUB.BA
TITLE: DRAW PROPOSED TYPICAL SECTION SUBGRADE LINES
Description
Sets the symbology to draw proposed typical section subgrade lines. The user should use standard Microstation commands to draw.

NAME: XSUB.BA
TITLE: DRAW EXISTING TYPICAL SECTION SUB-GRADE LINES

Description
Sets the parameters to draw existing typical section subgrade lines. The user needs to use the standard Microstation commands to draw.

NAME: TYPXSARR.UCM
CALLS: TYPTEST.UCM, MNU.UCM
TITLE: PLACE EXTRA SMALL ARROWHEAD TERMINATOR CELL FOR TYP. SECTIONS
Description
Activates the extra small arrowhead terminator cell (larrow) for placement on typical sections. The active angle is set graphically by selecting two data points on the leader line to place the cell at the proper angle.

NAME: TYSARROW.UCM
CALLS: TYPTEST.UCM, MNU.UCM
TITLE: PLACE SMALL ARROWHEAD TERMINATOR CELL FOR TYPICAL SECTIONS
Description
Activates the small arrowhead terminator cell (larrow) for placement on typical sections. The active angle is set graphically by selecting two data points on the leader line to place the cell at the proper angle.

NAME: TYMARROW.UCM
CALLS: TYPTEST.UCM, MNU.UCM
TITLE: PLACE MEDIUM ARROWHEAD TERMINATOR CELL FOR TYPICAL SECTION
Description
Activates the medium arrowhead terminator cell (larrow) for placement on typical sections. The active angle is set graphically by selecting two data points on the leader line to place the cell at the proper angle.

NAME: TYLARROW.UCM
CALLS: TYPTEST.UCM, MNU.UCM
TITLE: PLACE LARGE ARROWHEAD TERMINATOR CELL FOR TYPICAL SECTIONS
Description
Activates the large arrowhead terminator cell (larrow) for placement on typical sections. The active angle is set graphically by selecting two data points on the leader line to place the cell at the proper angle.

NAME: DIM.BA
TITLE: PLACE TYPICAL SECTION DIMENSIONS
Description
Sets the parameters to draw dimension lines.

NAME: TYPDIMTX.BA
TITLE: PLACE TEXT FOR TYPICAL SECTION DIMENSIONS MENUS > TYPICAL SECTION > DRAWING > TEXT > DIMENSIONS

Description
Sets the text parameters to place text for typical section dimensions. The current active scale determines the text size. The 'place text' command is issued to allow the users to begin placing text.

NAME: TYPPNOTE.BA
TITLE: PLACE TEXT FOR PROPOSED TYPICAL SECTION BASE AND SUBBASE NOTES
Description
Sets the text parameters to place text for typical section base and subbase note. These are notes that describe the paving type and thickness. The active scale determines the text size.

NAME: TYPXNOTE.BA
TITLE: PLACE TEXT FOR TYPICAL SECTION EXISTING BASE AND SUBBASE NOTES
Description
Sets the text parameters to place text for typical section existing base and subbase notes. These are notes that describe the paving type and thickness. The active scale determines the text size.

NAME: TYPTXSLP.BA
TITLE: PLACE TEXT FOR TYPICAL SECTION DRAWING DESCRIPTIONS
Description
Sets the text parameters to place text for typical section drawing descriptions. This would normal be text to describe the typical section drawing. Such as, slopes, plan grade, etc. The current active scale determines the text size. The 'place text' command is issued to allow the users to begin placing text.

NAME: TYPTXSLPPT.BA
TITLE: PLACE TEXT FOR TYPICAL SECTION SLOPE TEXT
Description
Use this command to measure a typical section slope between two data points and place text above an element that represents that slope. The slope will be in percent or ratio depending on the measurement. User must identify the element to place the text above.

NAME: TYPTXSPC.BA
TITLE: PLACE TEXT FOR TYPICAL SECTION DRAWING SPECIAL NOTES
Description
Sets the text parameters to place text for typical section drawing special notes. Such as, remove, to remain, see detail, etc. The current active scale determines the text size. The 'place text' command is issued to allow the users to begin placing text.

NAME: TYPMCTX.BA
TITLE: PLACE TEXT FOR TYPICAL SECTION MATCHLINE DESCRIPTIONS
Description
Sets the text parameters to place text for typical section matchline descriptions. The current

active scale determines the text size. The 'place text' command is issued to allow the users to begin placing text.

NAME: TYDISCTX.BA
TITLE: PLACE TEXT FOR TYPICAL SECTION DESCRIPTIONS MENUS > TYPICAL SECTION > TEXT > DIMENSIONS
Description
Sets the text parameters to place text for typical section descriptions. This is usually the stations below a typical section drawing. The current active scale determines the text size. The 'place text' command is issued to allow the users to begin placing text.

NAME: TYPTITX.BA
TITLE: PLACE TEXT FOR TYPICAL SECTION TITLE BLOCK DESCRIPTIONS
Description
Sets the text parameters to place text for typical section title block header. Designed to place header text. For example, the title block header ‘typical sections’ . The current active scale determines text size. The 'place text' command is issued to allow the users to begin placing text.

NAME: TYPTITX2.BA
TITLE: PLACE TEXT FOR TYPICAL SECTION
Description
Sets the text parameters to place text for typical section title block descriptions. For example, the stations, project numbers and counties. The current active scale determines the text size. The 'place text' command is issued to allow the users to begin placing text.

NAME: TYPMLN.BA
TITLE: PLACE TYPICAL SECTION MATCHLINE CELL
Description
Activates the typical section matchline cell (typmln) for placement on typical section drawings. The active scale is automatically set to 1 so the cell will be placed at the correct size.

NAME: TYPCIR.BA
TITLE: PLACE TYPICAL SECTION CIRCLE WITH NUMBER CELLS
Description
Activates user defined circles with number cells (c1 thru c50) for placement. The users has to key in the number to be inside the circle cell. Valid numbers are 1 through 50.

NAME: TYPXBX.UCM
CALLS: ASTEST.UCM, MNU.UCM
TITLE: PLACE TYPICAL SECTION BOXES WITH LETTERS CELLS
Description
Activates user defined boxes with letters' cells (axsub thru zxsub) for placement. The users has to key in the letter to be inside the box cell. Valid letters are a through z. These are usually used to notate existing subgrade pavement types and thickness.

NAME: TYPTU.BA
TITLE: PLACE TYPICAL SECTION TRAFFIC DIRECTION CELL (UPWARD)
Description
Activates the typical section traffic direction cell (trdu) for placement. The cell points by default in an upward direction. The active scale is automatically set to 1 so the cell will be placed at the correct size.

NAME: TYPTD.BA
TITLE: PLACE TYPICAL SECTION TRAFFIC DIRECTION CELL (DOWN)
Description
Activates the typical section traffic direction cell (trdd) for placement. The cell points by default in a down direction. The active scale is automatically set to 1 so the cell will be placed at the correct size.

NAME: TYPGRSS.BA
TITLE: PLACE GRASS SYMBOL CELLS ALONG ELEMENTS ON TYPICAL SECTION
Description
Use to help place grass symbol cells along element. The active scale is to as=1 during place to match the typical section it is being place on. The MDL command from the MDL application 'cellalng.ma' is called to place the cells.

NAME: UNDSYM.BA
TITLE: PLACE A TYPICAL SECTION UNDERDRAIN SYMBOL CELL
Description
Activates the typical section underdrain symbol cell (undsym) for placement. This is a symbol and not a detail. It is used to represent the location of a underdrain in a typical section drawing. It is automatically placed at as=1 and aa=0 in order for the cell to look correct.

NAME: DETUND.BA
TITLE: PLACE TYPICAL SECTION UNDERDRAIN TYPE I DETAIL CELL
Description
Activates the type I underdrain detail cell on the standard level structure. The active scale is set to 1 and the active angle to 0. Used for typical section details.

NAME: TYPMBR.BA
TITLE: PLACE TYPICAL SECTION 32" CAST-IN-PLACE MEDIAN BARRIER CELL
Description
Activates the typical section 32" cast-in-place barrier cell (medcip) for placement on typical section drawings. The active scale is automatically set to 1 so the cell is placed at the correct size.

NAME: TYPMBR42.BA
TITLE: PLACE TYPICAL SECTION 42" CAST-IN-PLACE BARRIER CELL
Description
Activates the typical section cast-in-place barrier cell (medcip42) for placement on typical section drawings. The active scale is automatically set to 1 so the cell is placed at the correct size.

NAME: TYPPBR.BA
TITLE: PLACE TYPICAL SECTION PRECAST BARRIER CELL
Description
Activates the typical section precast barrier cell (prmed) for placement. The active scale is automatically set to 1 so the cell will be placed at the correct size.

NAME: TYPBARR.BA
TITLE: DRAW TYPICAL SECTION BARRIERS
Description
Sets the parameters to draw typical section barriers.

NAME: TYPWALL.BA
TITLE: DRAW PROPOSED TYPICAL SECTION RETAINING WALLS
Description
Sets the parameters to draw proposed typical section walls. The user need to use the standard Microstation command to draw.

NAME: SETSHSCL.BA
TITLE: SET SCALE BY SHEET CELL
Description
Used to set the x, y, and z active scale by identifying a cell. This command is basically the same as 'setcelsc.BA'. The difference is only in the message prompts.

NAME: TYP32SFBRT.BA
TITLE: PLACE PROPOSED TYPICAL SECTION 32" RIGHT-FACED SINGLE CAST-IN-PLACE BARRIER
Description
Used to place a 32" right -facing single cast-in place barrier cell on a typical section drawing.

NAME: TYP32SFBLT.BA
TITLE: PLACE PROPOSED TYPICAL SECTION 32" LEFT-FACED SINGLE CAST-IN-PLACE BARRIER
Description
Used to place a 32" left-facing single cast-in place barrier cell on a typical section drawing.

NAME: TYP42SFBRT.BA
TITLE: PLACE PROPOSED TYPICAL SECTION 42" RIGHT-FACED SINGLE CAST-IN-PLACE BARRIER
Description
Used to place a 42" right -facing single cast-in place barrier cell on a typical section drawing.

NAME: TYP42SFBLT.BA
TITLE: PLACE PROPOSED TYPICAL SECTION 42" LEFT-FACED SINGLE CAST-IN-PLACE BARRIER
Description
Used to place a 42" left-facing single cast-in place barrier cell on a typical section drawing.

NAME: TYPFSPD.BA
TITLE: PLACE PROPOSED TYPICAL SECTION FREE-STANDING PLASTIC DRUM
Description
Used to place a free-standing plastic drum cell on a typical section drawing.

NAME: TYPDELIN.BA
TITLE: PLACE PROPOSED TYPICAL SECTION SNAP-BACK DELINEATOR
Description
Used to place a snap-back delineator cell on a typical section drawing.

NAME: TYPGPOST.BA
TITLE: PLACE PROPOSED TYPICAL SECTION GUARD POST
Description
Used to place a guard post cell on a typical section drawing.

NAME: TYPGRLT.BA
TITLE: PLACE PROPOSED TYPICAL SECTION LEFT-FACING GUARD RAIL
Description
Used to place a left-facing guard rail cell on a typical section drawing.

NAME: TYPGRRT.BA
TITLE: PLACE PROPOSED TYPICAL SECTION RIGHT-FACING GUARD RAIL
Description
Used to place a right-facing guard rail cell on a typical section drawing.

NAME: TYPGRDBL.BA
TITLE: PLACE PROPOSED TYPICAL SECTION DOUBLE-FACE GUARD RAIL
Description
Used to place a double-faced guard rail cell on a typical section drawing.

NAME: TYP3GLT.BA
TITLE: PLACE PROPOSED TYPICAL SECTION LEFT-FACING THRIE BEAM GUARD RAIL
Description
Used to place a left-facing thrie beam guard rail cell on a typical section drawing.

NAME: TYP3GRRT.BA
TITLE: PLACE PROPOSED TYPICAL SECTION RIGHT-FACING THRIE BEAM GUARD RAIL
Description
Used to place a right-facing thrie beam guard rail cell on a typical section drawing.

NAME: TYP3GRDBL.BA
TITLE: PLACE PROPOSED TYPICAL SECTION DOUBLE-FACE THRIE BEAM GUARD RAIL
Description
Used to place a double-faced thrie beam guard rail cell on a typical section drawing.

PROPOSED > RECAPITULATION >

NAME: GPKRECAPSIGNS.BA
CALLS: ACBOOK.MA, RECAP_SIGNS.X
TITLE: GEOPAK PLACE TRAFFIC CONTROL SIGN QUANTITIES ON TCPQ SHEET
Description
Accesses the Geopak 3PC criteria code to recap traffic control sign quantities an place on tcpQ sheet cell. A selection set of signs is required before running the command. Also, a tcpQ sheet cell must be identified for placing the quantities text.

NAME: GPKERORCAP.BA
CALLS: ACBOOK.MA, RECAP_EROSION.X
TITLE: GEOPAK PLACE EROSION CONTROL QUANTIES IN RECAP CELL/PER SH.
Description
Accesses the Geopak 3PC criteria code to recap erosion control quantities on a per sheet bases and then places the text of the recap stamp cell. A selection set of erosion control elements required before running the command. Also, a recap stamp should be on the sheet to identify for placing the text quantities.

NAME: SQSTEXT.BA
TITLE: SET TEXT PARAMETERS TO PLACE TEXT NOTES ON A SQS LINK SHEET
Description
Use to set the text parameters and standard level to place text notes on a Summary of Quantities sheet. This method is used to place note manually, not for pasting in as a link.

NAME: PASTESQS.BA
TITLE: PASTE SQS EXCEL SHEETS IN A DESIGN FILE
Description:
Use to define the level and attributes prior to pasting a copy of a SQS excel sheet into Microstation.

NAME: PASTESQSFOOT.BA
TITLE: PASTE SQS FOOTNOTE EXCEL NOTES IN A DESIGN FILE
Description:

Use to define the level and attributes prior to pasting a copy of SQS footnotes from and excel file into Microstation.

LABELS >

LABELS > TERMINATORS >

NAME: LEADER3.BA
CALLS: OLEADER.MA
Description
Use to place a three point leader line with or without a line terminator. This command calls the MDL application oleader.ma to perform the leader placement. If you want it to place a line terminator, you must activate a cell with the "LT=" command. The command places the elements at the current active parameters, so be sure to set them before using this command.

NAME: LEADER3PT.BA
CALLS: CALC.MA , RWDSTY.RSC
Description
Place a 3 point leader line on a generic level (active level and symbology). Activates Line Style "arrowline" to generate an arrowhead on the first point of the leaderline. The arrowhead is part of the line string, so it can be moved and modified as a group. Line Style scale is determined initially by the active scale, but once the user has place the initial beging point of the line they have enter a plus (+) or (-) to increase or decrease the line style scale by 25%, therefore changing the arrow head scale at the same time. On the keyboard the plus requires a shift to enter. To add conviencence you can press the = under it, thus not requiring the shift key.

NAME: LEADER2.BA
CALLS: OLEADER.MA
Description
Use to place a two point leader line with or without a line terminator. This command calls the MDL application oleader.ma to perform the leader placement. If you want it to place a line terminator, you must activate a cell with the "LT=" command. The command places the elements at the current active parameters, so be sure to set them before using this command.

NAME: LEADER2PT.BA
CALLS: CALC.MA , RWDSTY.RSC
Description
Place a 2 point leader line on a generic level (active level and symbology). Activates Line Style "arrowline" to generate an arrowhead on the first point of the leaderline. The arrowhead is part of the line string, so it can be moved and modified as a group. Line Style scale is determined initially by the active scale, but once the user has place the initial beging point of the line they have enter a plus (+) or (-) to increase or decrease the line style scale by 25%, therefore changing the arrow head scale at the same time. On the keyboard the plus requires a shift to enter. To add conviencence you can press the = under it, thus not requiring the shift key.

NAME: DBLALDR.BA
TITLE: PLACE DOUBLE ARROWHEAD LEADER LINE
Description
Used to place a leader line (lines only) that has arrowhead terminators on both ends of the line. The user must identify the size arrowhead terminator cell to place. The user then places a line. The terminators are then automatically placed on the ends of the line. The line is placed at the current symbology settings. The cell scale is determined by the current active scale (as=). The line and cells are placed as a graphic group.

NAME: ARROW2LINE.BA
CALLS: NONE
TITLE: SET LINE STYLE TO "ARROWLINE"
Description
Used to set the line style to "arrowline". This line style has a medium arrowhead on the beginning of any linear element drawn. It can be used with the 2PT or 3PT leader line applications to help generate a leader that has the advantage of letting you modify the line and have the arrow head move with the line.

NAME: LINE2ARROW.BA
CALLS: NONE
TITLE: SET LINE STYLE TO "LINEARROW"
Description
Used to set the line style to "linearrow". This line style has a medium arrowhead on the end of any linear element drawn. It can be used with the 2PT or 3PT leader line applications to help generate a leader that has the advantage of letting you modify the line and have the arrow head move with the line.

NAME: XSMARROW.UCM
CALLS: ASTEST.UCM, MNU.UCM
TITLE: PLACE EXTRA SMALL ARROWHEAD TERMINATOR
Description
Places the extra small arrowhead cell (xsarr) as a line terminator. The active angle is set graphical by identifying the end of the line and a point on the line behind the end point. Keypoint and project snap are turned on and off as needed to help make things easier to identify. The arrowhead cell will be placed on the active level with a reset or can be changed by keying in the level.

NAME: SMAARR.UCM
CALLS: ASTEST.UCM, MNU.UCM
TITLE: PLACE SMALL ARROWHEAD TERMINATOR CELL
Description
Use to place a small arrowhead line terminator cell (sarrow). The user must reset to select the

current active level or key in a new level for placement. The 'keypoint' and 'project' snap locks or turned on and off as needed to help identify the end of line for cell placement and a point on the line for setting the active angle.

NAME: MEDARR.UCM
CALLS: ASTEST.UCM, MNU.UCM
TITLE: PLACE MEDIUM ARROWHEAD TERMINATOR CELL
Description
Places the cell (marrow) as a line terminator. The user places the cell on current active level with a reset or keys in a new level. The end of the line is identified first and then a point behind the line end is identified. These two points determine the active angle. Keypoint and project snap are turned on or off automatically as needed.

NAME: LARARR.UCM
CALLS: ASTEST.UCM, MNU.UCM
TITLE: PLACE LARGE ARROWHEAD TERMINATOR CELL
Description
Places the cell (larrow) as a line terminator. The user places the cell on current active level with a reset or keys in a new level. The end of the line is identified first and then a point behind the line end is identified. These two points determine the active angle. Keypoint and project snap are turned on or off automatically as needed.

LABELS > STAMPS >

NAME: ERWKSMP.BA
TITLE: PLACE EARTHWORK STAMP
Description
Activates the earthwork stamp cell (ewst) for placement. The angle is set to zero (0) automatically for ease of placement on plan sheets.

NAME: PSE.BA
TITLE: PLACE PS&E STAMP CELL
Description
Activates the ps&e stamp cell (pse) for placement. The cell is automatically placed at an active angle of zero.

NAME: SUPRSTMP.BA
TITLE: PLACE SUPERELEVATION STAMP CELL
Description

Activates the superelevation stamp cell (super) for placement. The active angle is set interactively to orientate it with other features.

LABELS > NORTH ARROWS >

NAME: NLOGO.BA
TITLE: PLACE CADD NORTH ARROW CELL
Description
Activates the CADD North arrow cell (nlogo) for placement. The user must identify the center of the cell location. The cell is displayed by default at active angle 0 (zero). This orientation is usually north when the view is not rotated. The user can change the angle in the tool settings dialog or by keying in AA= and an angle. A user can use interactive mode if needed by activating it in the tool setting dialog.

NAME: NARROW.BA
TITLE: PLACE NORTH ARROW CELL
Description
Activates the standard North arrow cell (north) for placement. The user must identify the center of the cell location. The cell is displayed by default at active angle 0 (zero). This orientation is usually north when the view is not rotated. The user can change the angle in the tool settings dialog or by keying in AA= and an angle. A user can use interactive mode if needed by activating it in the tool setting dialog.

NAME: NARROW2.BA
TITLE: PLACE NORTH ARROW CELL 2 (ALTERNATE)
Description
Activates the standard North arrow cell (north2) for placement. The user must identify the center of the cell location. The cell is displayed by default at active angle 0 (zero). This orientation is usually north when the view is not rotated. The user can change the angle in the tool settings dialog or by keying in AA= and an angle. A user can use interactive mode if needed by activating it in the tool setting dialog.

NAME: NARROW3.BA
TITLE: PLACE NORTH ARROW CELL 3 (ALTERNATE)
Description
Activates the standard North arrow cell (north3) for placement. The user must identify the center of the cell location. The cell is displayed by default at active angle 0 (zero). This orientation is usually north when the view is not rotated. The user can change the angle in the tool settings dialog or by keying in AA= and an angle. A user can use interactive mode if needed by activating it in the tool setting dialog.

NAME: NARROW4.BA
TITLE: PLACE NORTH ARROW CELL 4 (ALTERNATE)
Description

Activates the standard North arrow cell (north4) for placement. The user must identify the center of the cell location. The cell is displayed before placement so the user can either interactively define the direction to North or key in the active angle from zero.The cell is displayed by default at active angle 0 (zero). This orientation is usually north when the view is not rotated. The user can change the angle in the tool settings dialog or by keying in AA= and an angle. A user can use interactive mode if needed by activating it in the tool setting dialog.

NAME: NARROW5.BA
TITLE: PLACE NORTH ARROW CELL 5 (ALTERNATE)
Description
Activates the standard North arrow cell (north5) for placement. The user must identify the center of the cell location. The cell is displayed by default at active angle 0 (zero). This orientation is usually north when the view is not rotated. The user can change the angle in the tool settings dialog or by keying in AA= and an angle. A user can use interactive mode if needed by activating it in the tool setting dialog.

NAME: NARROW6.BA
TITLE: PLACE NORTH ARROW CELL 6 (ALTERNATE)
Description
Activates the standard North arrow cell (north6) for placement. The user must identify the center of the cell location. The cell is displayed by default at active angle 0 (zero). This orientation is usually north when the view is not rotated. The user can change the angle in the tool settings dialog or by keying in AA= and an angle. A user can use interactive mode if needed by activating it in the tool setting dialog.

NAME: NARROW7.BA
TITLE: PLACE NORTH ARROW CELL 7 (ALTERNATE)
Description
Activates the standard North arrow cell (north7) for placement. The user must identify the center of the cell location. The cell is displayed by default at active angle 0 (zero). This orientation is usually north when the view is not rotated. The user can change the angle in the tool settings dialog or by keying in AA= and an angle. A user can use interactive mode if needed by activating it in the tool setting dialog.

NAME: COMPASS.BA
TITLE: PLACE MAPPING COMPASS SYMBOL CELL
Description
Use to place a mapping compass symbol cell (COMPAS) on the standard level structure. The user must identify the center of the cell location. The cell is displayed by default at active angle 0 (zero). This orientation is usually north when the view is not rotated. The user can change the angle in the tool settings dialog or by keying in AA= and an angle. A user can use interactive mode if needed by activating it in the tool setting dialog.

NAME: COMPASS2.BA
TITLE: PLACE MAPPING COMPASS SYMBOL CELL
Description
Use to place a mapping compass symbol cell (COMPAS2) on the standard level structure. The user must identify the center of the cell location. The cell is displayed by default at active angle 0 (zero). This orientation is usually north when the view is not rotated. The user can change the angle in the tool settings dialog or by keying in AA= and an angle. A user can use interactive mode if needed by activating it in the tool setting dialog.

NAME: NARROWTMATRX.BA
TITLE: PLACE TRUE NORTH - NORTH ARROW CELL
Description
Activates the north arrow cell (nlogo) and then places it using the "place cell relative tmatrx" command. This command insures that the cell is automatically placed at a due (true) north direction. The command ignores the active angle, scale and view rotation and locates true north. Since the command places the scale at one, it is rescaled to the active scale set during placing. The command only works in the active file and does not consider the rotation of reference files.

LABELS > MISCS >

NAME: CIR.BA
TITLE: PLACE CIRCLES WITH NUMBERS
Description
Used to place circle cells that contain numbers. The cell is placed on the standard level structure, but the user has the option to select a new level. The command prompts for the number to be in the circle. Valid numbers (1-50).

NAME: PSMS.BA
TITLE: PLACE PLUS/MINUS SYMBOL CELL
Description
Use to place a Plus/Minus symbol cell. The cell is placed on the active level, but prompts for options to change the level. The cell is placed using the Interactive Cell Relative command which will allow you to place the symbol visually at a size that approximates the text it is being place adjacent to.

NAME: MTCHLINE.BA
TITLE: DRAW MATCHLINES AND MATCHLINE TEXT
Description
Set the parameters to draw or place text for match lines. The active scale determines the text size.

NAME: CL.BA
TITLE: PLACE CENTERLINE SYMBOL

Description
Used to place a centerline symbol. The active angle is defined graphically by defining the direction the text will read.

NAME: BL.BA
TITLE: PLACE BASELINE SYMBOL
Description
Used to place a baseline symbol. The active angle is defined graphically by defining the direction the text will read.

NAME: PCPT.BA
TITLE: PLACE PC OR PT SYMBOL CELL
Description
Activates the pcpt cell (pcpt) for placement. The command will prompt the user to select the level before placement.

NAME: PI.BA
TITLE: PLACE THE PI SYMBOL CELL
Description
Activates the pi cell (pi) for placement. The user must select the level for placement. The active angle is set graphically prior to placing the cell so that the cell is placed at a rotation to align it with other alignment features.

NAME: SCALEBAR.BA
TITLE: PLACE SCALE BAR CELL
Description
Activates the scale bar cell (sbar) for placement. The cell is placed automatically at an active angle of zero .

ELEMENTS >

ELEMENTS > TOOLS >

NAME: ROTATEHORZ.BA
TITLE: ROTATES ELEMENTS TO HORIZONTAL
Description
This command allows user to rotate an identified element to horizontal (angle 0). It works by getting the endpoints of a element and then finding its active angle. The angle is then reversed and the element is rotated, thus making it horizontal on the screen. Valid elements are; line, linestring, shape, curve, bsplinepole, pointstring, arc, ellipse, complexstring, complexshape, and multiline. Closed elements have the same start and end point, thus the angle is not changed and it cannot be rotated.

NAME: ROTATELINEBYAA.BA
TITLE: ROTATES ELEMENTS BY CURRENT ACTIVE ANGLE
Description
This command allows user to rotate an identified element by the current active angles. It works by using the currently active angle to rotate an element. It rotates about the starting point used when the element was created. Valid elements are; lines, linestrings, shapes, curve, bsplinepole, pointstring, are, ellipse, complex string, complex shape, and multi-lines.

NAME: LINBRE.BA
TITLE: DIVIDE LINE INTO TWO ELEMENTS
Description
This command uses the partial delete command twice at a point on a line identified by the users. It divides the line into two adjoining elements.

NAME: AUTOBREAK.MVBA
TITLE: DIVIDE LINE INTO TWO ELEMENTS USING USER DEFINED GAP SIZE DIALOG
VBA KEYIN: VBA RUN MODGAP.MACRO_GAP
Description
This visual basic program macro is called "Smart Break" because it displays a dialog box that lets you key-in the distance to break the line.

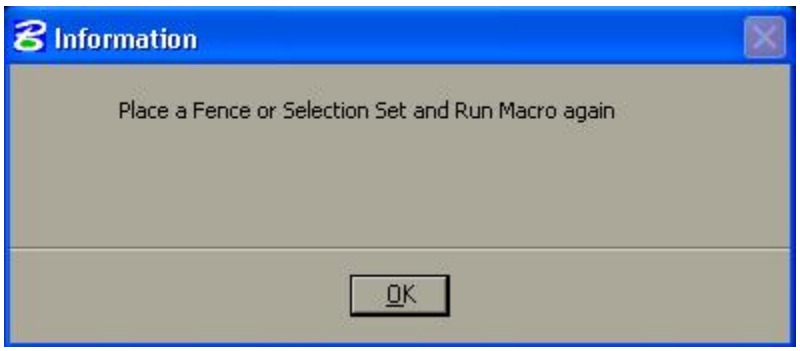
NAME: ADDGG.BA
TITLE: CREATE A GRAPHIC GROUP FROM ELEMENTS IN A FENCE OR SELECTION SET
Description
Use to create a graphic group from elements located in a fence or selection set. User must place a fence or create a selection set before starting the application.

NAME: DELPT.BA
TITLE: DELETE ALL ACTIVE POINTS IN DESIGN FILE
CALLS: DELPT.BA
Description
Use this command to delete all active points (zero length lines) in a design file. The command call a basic program delpt.ba that does the deleting. This user command is used as a front end to prompt the user to see if he is sure he want to run the command. An undo mark is created prior to removing the points to allow you to start over.

NAME: FILLBACK.BA
TITLE: MOVE FILLED SHAPES BACK BEHIND OTHER ELEMENTS
Description
Use this command to move filled shapes to the back of other elements. It moves other elements forward. This will make all elements appear over the top of the filled shape element.

NAME: GPKEXTLINES.BA
TITLE: GEOPAK 3PC - EXTEND MULTIPLE LINES TO INTERSECT
CALLS: ACBOOK.MA, MODIFY_EXTEND_LINES.X
Description
This command calls the Geopak 3PC application to extend multiple lines to another line. Requires uses to create a selection set of the lines that they want to extend. Then the 3PC will prompt through the steps to extended them to intersect another line. Geopak must be activated to use.

NAME: REVERSELNBA
TITLE: REVERSE DIRECTION OF LINE
Description
This command will allow you to identify lines in a fence or selection set and reverse the directions the lines are drawn. If a fence or selection set does not exist when starting the command a dialog box will display as follows:



NAME: COPHOR.BA
TITLE: COPY ELEMENT ALONG A HORIZONTAL DIRECTION
Description
Used to identify and element and key in a distance to copy a element in a horizontal direction. The distance should be keyed in as negative if the user wants to copy to the left or the original element.

NAME: COPVER.BA
TITLE: COPY ELEMENT ALONG A VERTICAL DIRECTION
Description
Used to identify an element and using a keyed in distance, copy an element in a vertical direction. The distance should be keyed in as negative if the user wants to copy below the original element.

NAME: REVERSELN.BA
TITLE: REVERSES THE DIRECTION OF DRAW LINEAR ELEMENTS
Description
This command will find elements that either are located in a fence or have been selected and

reverses the direction of the element. It can be helpful when you have several elements that should have been drawn in the reverse direction.

NAME: TABLE.UCM
TITLE: CONSTRUCT A USER DEFINED TABLE
Description
Use to construct a table with a user defined number of rows and columns. You will have to enter the number of columns, rows, and the size of each. The elements are drawn using the current active symbology.

NAME: POINTALONG.BA
TITLE: DRAW A LINE THAT IS LOCATED AT A SPECIFIED DIST ALONG A LINEAR ELEMENT
CALLS: ACCUDRAW
Description
Use this command to draw a line from a point on a linear element. The point on the element is found by users who specified the distance and direction along the element. AccuDraw is used when drawing the line to make it easy to draw the line either perpendicular, tangent, or at a specified angle relative to the point on the identified linear element.

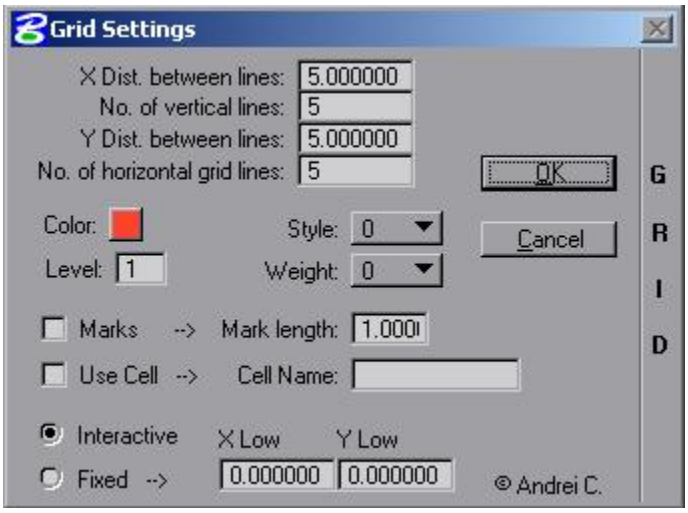
NAME: CNSTRCT.BA
TITLE: TOGGLES CLASSES (PRIMARY AND CONSTRUCTION)
Description
Toggles the class mode for elements being placed between construction and primary.

NAME: HALO.MVBA
TITLE: CREATES A "HALO" EFFECT UNDER SELECTED ELEMENTS
Description
Enhances the appearance of plots of vector elements over photographs without having to modify the existing elements in your design file. It creates a duplicate element with a heavier weight and modified colors under selected elements, thus creating a "halo" effect. Since it creates elements in the design file you should make an effort to create these "halo" elements on a unique symbology that can be easily manipulated later. The application will display a text file "halo.txt" with instructions. The basic instructions are also listed below:
1. Create a selection set of the elements that you want to create a halo effect under.
2. Activate the application. A dialog box will appear.

3. Set the Color and Weight Symbology. The "recommended" symbology is preset for you.
4. Enter a data point in the view to start the process and create the duplicated elements with

the defined symbology.
Note: The application creates the elements on the same levels as the selected elements. If you want to modify the duplicated elements you have to use the color or weight defined in the dialog. One of these of which must be unique. The application creates a "undo mark" before placing the elements to allow you to undo to a point in history before placing the elements.

NAME: GRID.BA
TITLE: DRAW A USER DEFINED GRID IN DESIGN FILE
Description
This command activates a dialog that lets you draw different types of grid layouts in a design file. Parameters must be introduced in the dialog (shown below). Parameters include distance between x and y lines as well as the number of lines to draw. You can control color, level, style, and weight of the lines. If you turn on "Marks" the command will draw ticks on the grid intersections instead of a full grid. A cell can be used instead of marks. If you select to place the grid interactively then you must identify a location in the design file for the lower left corner of the grid to be drawn. You can use a fixed coordinate in the dialog to control the grid coordinates. Once all the parameters have been entered press the OK button to draw grid.



ELEMENTS > TEXT > PLACE/EDIT >

NAME: CENTEX.UCM
CALLS: MNU.UCM
TITLE: PLACE CENTERED TEXT
Description
User identifies two points and then enters the text to be placed. The text is placed centered between the user's identified points. The active angle between the two points is used when centering the text.

NAME: VERTEX.UCM
CALLS: ASTEST.UCM, MNU.UCM

TITLE: PLACE VERTICAL TEXT
Description
Takes any text input by the user and inserts a line feed after each character which creates a text node. The text node when placed will read from top to bottom one letter at a time.

NAME: DATETIME.UCM
CALLS: MNU.UCM
TITLE: PLACE DATE, TIME, OR BOTH AS TEXT IN DESIGN FILE
Description
Allows you to place the current Date, Time, or Both in the Design File as text. The text is placed with the current active text settings.

NAME: BDL.BA
TITLE: PLACE BEARING/LENGTH TEXT ALONG A LINE
Description
Allows you to place text along a line showing the bearing and length of the identified line. The text is place using the current active text settings. NOTE: There is no source code for this command.

NAME: ADDCOLUMN.BA
TITLE: ADD TEXT (NUMBERS) AND GIVE A TOTAL
Description
This command will add up selected numbers and give you a total. The numbers that you need to add must be either in a fence or have been selected. The command will then add the numbers and display a total in the message field. The place text command is activated so you can place the total as text. The text is placed using the active text settings. When the command completes and you can see the total in the message field, just click the reset button to get it to display.

NAME: CALENDAR.BA
TITLE: PLACE THIS MONTHS CALENDAR AS TEXT IN DESIGN FILE
Description
This command allows user to place this month's calendar as text in the design file. The active text settings are used to place text, so you will need to set those before using command. The text will allows be placed at the coordinates 0,0,0.

NAME: VERINCTX.BA
TITLE: COPY AND INCREMENT TEXT ALONG A VERTICAL PATH
Description
Allows the user to identify an existing text string, key in a distance (positive up) (negative down) and copy and increment the text along that distance.

NAME: HOZINCTX.BA
TITLE: COPY AND INCREMENT TEXT ALONG A HORIZONTAL PATH

Description
Allows the user to identify an existing text string, key in a distance (positive right) (negative left), and copy and increment the text along that distance. Text can only be incremented from 1 to 9, 10 to 99, 100 to 999, etc.

ELEMENTS > TEXT > MODIFY >

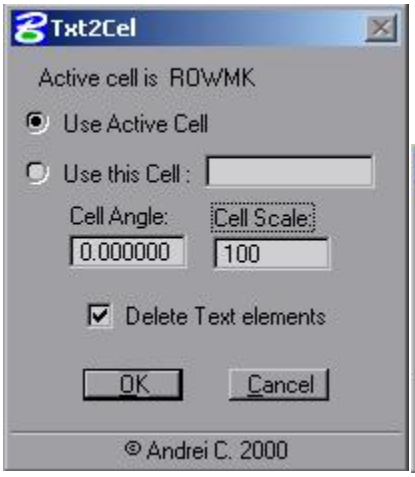
NAME: CHATEX.BA
TITLE: CHANGE TEXT PARAMETERS
Description
Changes the identified parameters (level, size, font, color, and weight) to those currently active when the command is used.

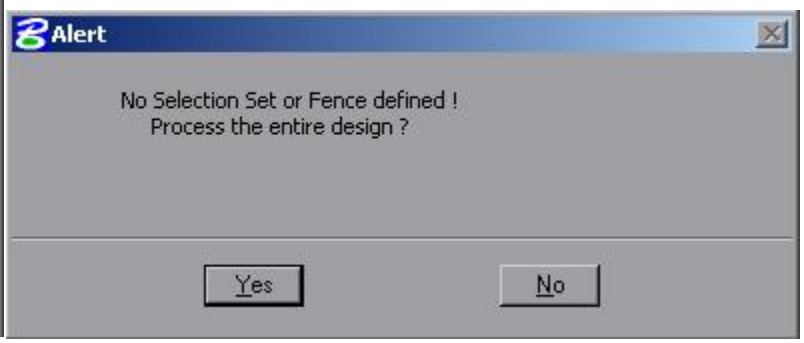
NAME: CHCASE.BA (THIS HAS BEEN REPLACED WITH A BUILT-IN COMMAND IN MICROSTATION)
TITLE: CHANGE THE CASE OF TEXT IN DGN
Description
Using a dialog box you can change the case of text in the design file. The options are either to change to upper case, lower case, or capitalized. The command only works with text in a fence or that has been selected. If it doesn't find either of these it will issue a message telling the user. NOTE: There is no source code for this command. The dialog is shown below:

NAME: BUMPTXTSIZE.BA
TITLE: BUMP UP OR DOWN TEXT SIZE BY PERCENTAGE
Description
Use to bump up or down the size of text by a percentage. When activated a dialog box appears which shows the current percent (%) and buttons to either make the text size "Bigger" or "Smaller". The "Cancel" button has to be used to exit the application. The percentage is set to 5 by default but and be changed by the user. Dialog box is shown below:

NAME: TXHORZ.BA
TITLE: ALIGN TEXT ELEMENT TO ACTIVE ANGLE OF ZERO
Description
Use to rotate or align a single text element to horizontal or active angle of zero.

NAME: TXT2CEL.BA
TITLE: CONVERT TEXT TO CELLS
Description
This command has the ability to replace text or text nodes with cells from either a selection set or in a fence. If you select or place a fence and run this command you will be prompted by dialog to choose the current active cell name or enter a cell name that you want to replace the selected text with. You can also set a scale and rotation for the cell. You can also have it delete the text when it is replaced with the cell. If you run this command without a selection set or fence then you will be asked if you want to replace all the text in the entire design file. Dialogs shown below:





ELEMENTS > TEXT > ADJUST SIZE >

NAME: TEX06.BA
TITLE: SET TEXT ATTRIBUTES FOR TEXT SIZE (.06")
Description

Sets text size listed, the size is determined by taking the distance in feet and multiplying it by the current active scale. The 'place text' command is issued so the user can begin placing text.

NAME: TEX10.BA
TITLE: SET TEXT ATTRIBUTES FOR TEXT SIZE (.10")
Description
Sets the text listed, the size is determined by taking the distance in feet and multiplying it by the current active scale. The 'place text' command is issued so the user can begin placing text.

NAME: TEX12.BA
TITLE: SET TEXT ATTRIBUTES FOR TEXT SIZE (.12")
Description
Sets the text listed, the size is determined by taking the distance in feet and multiplying it by the current active scale. The 'place text' command is issued so the user can begin placing text.

NAME: TEX13.BA
TITLE: SET TEXT ATTRIBUTES FOR TEXT SIZE (.13")
Description
Sets the text listed, the size is determined by taking the distance in feet and multiplying it by the current active scale. The 'place text' command is issued so the user can begin placing text.

NAME: TEX14.BA
TITLE: SET TEXT ATTRIBUTES FOR TEXT SIZE (.14")
Description
Sets the text listed, the size is determined by taking the distance in feet and multiplying it by the current active scale. The 'place text' command is issued so the user can begin placing text.

NAME: TEX15.BA
TITLE: SET TEXT ATTRIBUTES FOR TEXT SIZE (.15")
Description
Sets the text listed, the size is determined by taking the distance in feet and multiplying it by the current active scale. The 'place text' command is issued so the user can begin placing text.

NAME: TEX18.BA
TITLE: SET TEXT ATTRIBUTES FOR TEXT SIZE (.18")
Description
Sets the text listed, the size is determined by taking the distance in feet and multiplying it by the current active scale. The 'place text' command is issued so the user can begin placing text.

NAME: TEX20.BA
TITLE: SET TEXT ATTRIBUTES FOR TEXT SIZE TO (.20")
Description
Sets the text listed, the size is determined by taking the distance in feet and multiplying it by the current active scale. The 'place text' command is issued so the user can begin placing text.

NAME: TEX23.BA
TITLE: SET TEXT ATTRIBUTES FOR TEXT SIZE TO (.23")
Description
Sets the text listed, the size is determined by taking the distance in feet and multiplying it by the current active scale. The 'place text' command is issued so the user can begin placing text.

NAME: TEX25.BA
TITLE: SET TEXT ATTRIBUTES FOR TEXT SIZE TO (.25")
Description
Sets the text listed, the size is determined by taking the distance in feet and multiplying it by the current active scale. The 'place text' command is issued so the user can begin placing text.

NAME: TEX30.BA
TITLE: SET TEXT ATTRIBUTES FOR TEXT SIZE TO (.30")
Description
Sets the text listed, the size is determined by taking the distance in feet and multiplying it by the current active scale. The 'place text' command is issued so the user can begin placing text.

NAME: TEX35.BA
TITLE: SET TEXT ATTRIBUTES FOR TEXT SIZE TO (.35")
Description
Sets the text listed, the size is determined by taking the distance in feet and multiplying it by the current active scale. The 'place text' command is issued so the user can begin placing text.

NAME: TEX40.BA
TITLE: SET TEXT ATTRIBUTES FOR TEXT SIZE TO (.40")
Description
Sets the text listed, the size is determined by taking the distance in feet and multiplying it by the current active scale. The 'place text' command is issued so the user can begin placing text.

NAME: TEX50.BA
TITLE: SET TEXT ATTRIBUTES FOR TEXT SIZE TO (.50")
Description
Sets the text listed, the size is determined by taking the distance in feet and multiplying it by the current active scale. The 'place text' command is issued so the user can begin placing text.

NAME: TEX60.BA
TITLE: SET TEXT ATTRIBUTES FOR TEXT SIZE TO (.60")
Description
Sets the text listed, the size is determined by taking the distance in feet and multiplying it by the current active scale. The 'place text' command is issued so the user can begin placing text.

NAME: TEX75.BA
TITLE: SET TEXT ATTRIBUTES FOR TEXT SIZE TO (.75")

Description
Sets the text listed, the size is determined by taking the distance in feet and multiplying it by the current active scale. The 'place text' command is issued so the user can begin placing text.

NAME: TEX100.BA
TITLE: SET TEXT ATTRIBUTES FOR TEXT SIZE (1")
Description
Sets the text listed, the size is determined by taking the distance in feet and multiplying it by the current active scale. The 'place text' command is issued so the user can begin placing text.

ELEMENT > TEXT > WORDPROCESSOR >

NAME: TXEDITORSTYLE_DB.BA
TITLE: SET THE TEXT EDITOR STYLE PREFERENCE TO DIALOG BOX
CALLS: USERPREF.MA, RASTMG.MA, SPELLCHECK.MA
Description
Allows the user to set the preference for text editing style to DIALOG BOX without having to use the Workspace > Preference dialog box.

NAME: TXEDITORSTYLE_WORDPROC.BA
TITLE: SET THE TEXT EDITOR STYLE PREFERENCE TO WORD PROCESSOR
CALLS: USERPREF.MA, RASTMG.MA, SPELLCHECK.MA
Description
Allows the user to set the preference for text editing style to WORK PROCESSOR without having to use the Workspace > Preference dialog box.

NAME: TXEDITORSTYLE_KEYIN.BA
TITLE: SET THE TEXT EDITOR STYLE PREFERENCE TO KEYIN
CALLS: USERPREF.MA, RASTMG.MA, SPELLCHECK.MA
Description
Allows the user to set the preference for text editing style to KEY IN without having to use the Workspace > Preference dialog box.

NAME: TXEDITORSTYLE_WYSIWUG.BA
TITLE: SET THE TEXT EDITOR STYLE PREFERENCE TO WYSIWUG
CALLS: USERPREF.MA, RASTMG.MA, SPELLCHECK.MA
Description
Allows the user to set the preference for text editing style to WYSIWUG (what you see is what you get) without having to use the Workspace > Preference dialog box.

NAME: WPFONTSIZES.BA
TITLE: SET THE TEXT EDITOR WORD PROCESSOR FONT SIZE TO (SMALL - 10PT)
CALLS: USER PREFERENCES
Description

One of three macros added for adjusting the font display size in the Word Processor style of Text Editor. This macro sets the font to small (10pt). The macro actually loads the user preference application and changes the Text / Text Editor Font Size setting without having to use the dialogs. This command does not inhibit you from changing the font display to other point sizes in the preferences.

NAME: WPFONTSIZEM.BA
TITLE: SET THE TEXT EDITOR WORD PROCESSOR FONT SIZE TO (MEDIUM - 14PT)
CALLS: USER PREFERENCES
Description
One of three macros added for adjusting the font display size in the Word Processor style of Text Editor. This macro sets the font to medium (14pt). The macro actually loads the user preference application and changes the Text / Text Editor Font Size setting without having to use the dialogs. This command does not inhibit you from changing the font display to other point sizes in the preferences.

NAME: WPFONTSIZEL.BA
TITLE: SET THE TEXT EDITOR WORD PROCESSOR FONT SIZE TO (LARGE - 18PT)
CALLS: USER PREFERENCES
Description
One of three macros added for adjusting the font display size in the Word Processor style of Text Editor. This macro sets the font to large (18pt). The macro actually loads the user preference application and changes the Text / Text Editor Font Size setting without having to use the dialogs. This command does not inhibit you from changing the font display to other point sizes in the preferences.

ELEMENTS > CELLS >

ELEMENTS > CELLS > PLACE

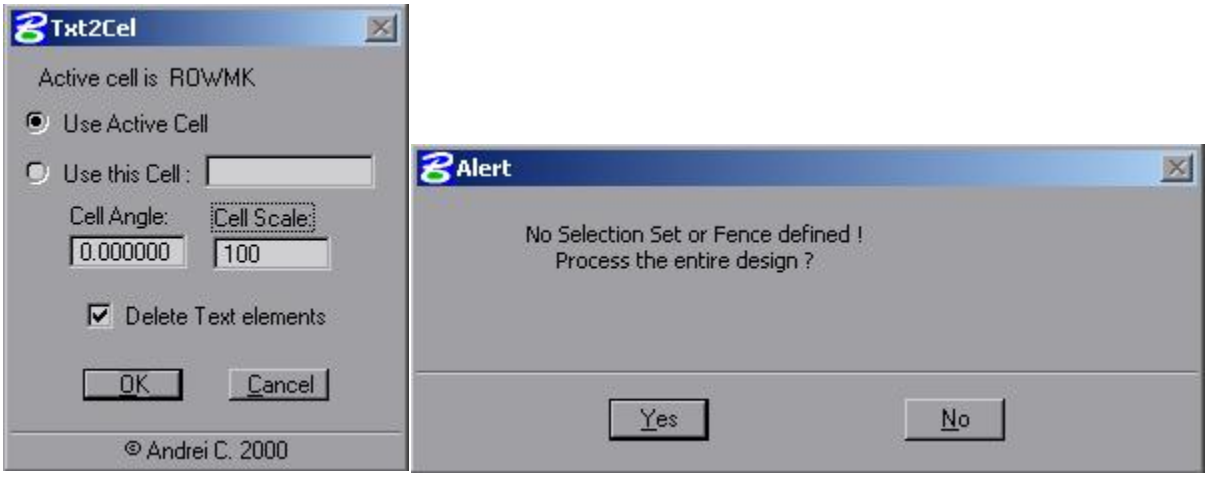
NAME: CELLBYLINE.BA
TITLE: PLACE CELL BY ACTIVE ANGLE OF SELECTED LINE
Description
Place the current active cell by the active angle of a selected line. If no cell is active, no cell will be placed.

NAME: SETCELSC.BA
TITLE: SET SCALE BY CELL
Description
Used to set the x, y, and z active scale by identifying a cell.

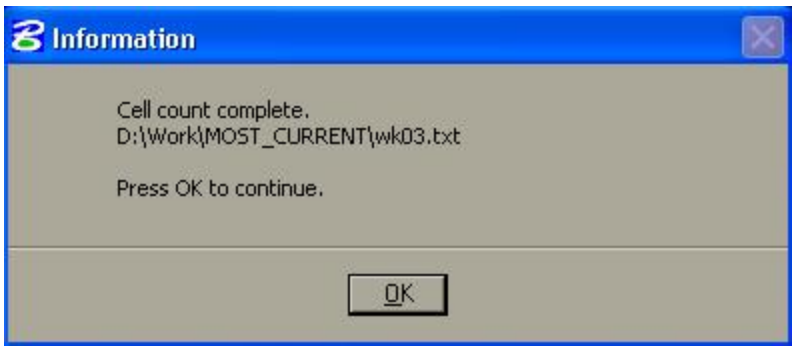
NAME: PT2CELL.BA
TITLE: REPLACE ACTIVE POINTS WITH ACTIVE CELL
Description

This command has the ability to search the design file for all active points and replace them with the current active cell. The cell is placed at the current active scale and angle. The user must assign the active cell, scale, and angle prior to running this command. If no cell is active the command will replace the points with nothing. In other words, the points would be deleted. The command creates and undo mark before replacing the points so you can perform and undo to mark command to start over. Currently the command will replace all points in the design file with a cell even if the level is turned off that contains a point element.

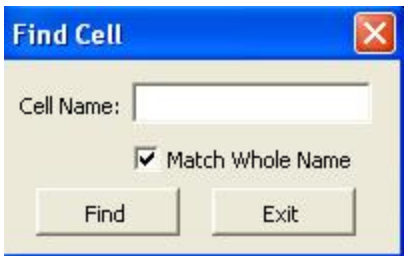
NAME: TXT2CEL.BA
TITLE: CONVERT TEXT TO CELLS
Description
This command has the ability to replace text or text nodes with cells from either a selection set or in a fence. If you select or place a fence and run this command you will be prompted by dialog to choose the current active cell name or enter a cell name that you want to replace the selected text with. You can also set a scale and rotation for the cell. You can also have it delete the text when it is replaced with the cell. If you run this command without a selection set or fence then you will be asked if you want to replace all the text in the entire design file. Dialogs shown below:



NAME: CELLCNT.BA
TITLE: COUNT CELLS IN DESIGN FILE AND EXPORT TO FILE
Description
Reads all the cells in the design file and totals all of the instances. Then it writes the results to a text file. The macro will overwrited the text file each time it is run. It also displays the info to the screen. The file is written to the same directory as the design file. Below are examples of the dialogs used during the process:



NAME: FINDCELL.MVBA
TITLE: FINDS CELLS IN DESIGN FILE BY CELL NAME.
Description
VBA application that finds cells in a design file based on cell name. User enters cell name and can select to find the “whole” cell name or just partial. The cells found are displayed in the view zoomed in. If the FIND button is pressed again the next cell is found and displayed. If a cell is not found or the end of the design file is reached a message telling the user is displayed. The application can be found on the Dzine menu or manually started with the key in: vba run findcell



NAME: PROCELL.UCM
CALLS: MNU.UCM, ASTEST.UCM
TITLE: PLACE USER DEFINED CELL IN PROFILE
Description
Used to place user defined cells in profiles. When started the command displays the vertical and horizontal scale that will be used while placing the cells. The user then identifies with a data point the beginning station reference. This point is usually a point on the bottom grid lines (lower left) of a profile sheet. The user then keys in the beginning station and elevation of that point. This gives the command a point of reference when calculating the locations of the cell. To place the cell the user keys in the new station and elevation of the cell. The cell is then placed and the user is returned to prompt for placing another cell or reset to exit.

The only valid scale rations are (1"=20' and 1"=100'). If the current active scale is not correct the user command will exit.

NAME: LCELLTOOL.BA
CALLS: CELLTOOL.MA
TITLE: LOADS THE MDL APP CELLTOOL.MA AND ACTIVATED TOOLS
Description
Used to activate the mdl application celltool.ma and automatically activate the tools with the key in "dialog palette celltool".

NAME: LCELLWIZ.BA
CALLS: CELLWIZ.MA (LOADED WITH MS_DGNAPPS)
TITLE: ACTIVATES TOOLS FOR APPLICATION
Description
Used to activate the cellwiz command from the loaded mdl application cellwiz.ma".

ELEMENTS > SYMBOLOGY > LINE STYLE SCALING >

NAME: LSRATIO.BA
CALLS: CALCULATE.MA
TITLE: SET AND TURN ON CUSTIOM LINE STYLE SCALE RATIOS
Description
This command will turn on the custom line style scale option and let the user set the scale

factor ratio. Once set, ALL custom line styles will be placed at the defined scale ratio until turned off. You can use 'lsratiof.ba' to turn of the setting.

The command loads the MDL application CALCULAT to turn on and set the custom line TCB variables need for this command. Below are the calc command used:

calc tcb->lineStyle.modifies|=1

:turns on bit 0 which tells Microstation to place custom line styles at a defined scale ratio.

calc tcb->lineStyle.scale=<number>

:sets the scale at which the custom line style will be placed. The <number> variable is any number that represents a factor that changes the scale ratio of the line style from its original size.

NAME: LSRATIOF.BA
CALLS: CALCULATE.MA
TITLE: TURN OFF CUSTIOM LINE STYLE SCALE RATIOS
Description
This command will turn off the custom line style scale option and let the user return the scale factor ratio to (1:1).
The command load the MDL application CALCULAT to turn off the custom line TCB variables need for this command. Below are the calc command used:

calc tcb->lineStyle.modifies&=(~1)

:clears bit 0 which tells Microstation to turn off the scale ratio.

calc tcb->lineStyle.scale=1

:sets the scale ratio back to 1:!. To help ensure that the user does not place custom line styles at a revised scale.

NAME: LSSCL.BA
TITLE: CHANGE THE SCALE RATIO OF A SINGLE CUSTOM LINE STYLE
Description
This command can be used to change the scale ration of a custom line style place in a design file. It prompts to identify a single custom line style element to be modified.

NAME: LSSCLSEL.BA
TITLE: CHANGE THE SCALE RATIO OF CUSTOM LINE STYLES IN A SELECTION FENCE
Description

This command can be used to change the scale ration of custom lines styles placed in a design file. The command prompts the user to place a selection fence to identify the lines that they wish to modify.

ELEMENTS > SYMBOLOGY > LEVEL DISPLAY >

NAME: LVSALLONV.BA
TITLE: TURN ON ALL LEVELS IN ALL VIEWS (1-8)
Description
This command can be used to turn on all levels in all views (1-8). The command opens views 1 - 8 and turns on all levels in each view. Then all the views are closed again, except for views 1 and 5. The fit all command is issued in these two views and the save settings command is issued. The command is only practical for dual-screen setups.

NAME: LVALLONREF.BA
TITLE: TURN ON ALL LEVELS IN ALL ATTACHED REFERENCE FILES
Description
This command can be used to turn on all levels for attached reference files in a user selected view. Tools setting activated allow you to use the Reference Dialog list if the dialog is active and allows you to use an active fence.

NAME: LVLOFF.BA
TITLE: TURN OFF ALL LEVELS EXCEPT IDENTIFIED ELEMENT
Description
This command can be used to turn all levels off in a view except for the level of an identified element.

NAME: LVDISPLAYOFF.BA
TITLE: TURN OFF ALL LEVELS EXCEPT IDENTIFIED ELEMENT
Description
This command can be used to Identify an element and turn off the level that the element is located on.

NAME: LVALLOFFREF.BA
TITLE: TURN OFF ALL LEVELS IN ALL ATTACHED REFERENCE FILES
Description
This command can be used to turn off all levels for attached reference files in a user selected view. Tools setting activated allow you to use the Reference Dialog list if the dialog is active and allows you to use an active fence.

FENCE >

FENCE > PLACE

NAME: PSCLFENCE.UCM
TITLE: PLACE FENCE BASED ON A PLOTTING SCALE AND SIZE
Description
Use to place a fence block based on a plotting scale and a size entered in inches. For example, if you needed a plotting fence that would plot an area at a scale of 1"=200' on a 11"x17" paper size you could use this command to do this. The user enters a starting data point to define the lower left corner of the fence to be placed, then enter the plots scale (i.e. 200) and then an x distance (i.e. 17) and a y distance (i.e. 11), both in a value of inches. The result would be a fence that has a size that would plot the data at 1"=200' scale on the size paper indicated.

FENCE > TEXT

NAME: FENCETXHORZ.BA
TITLE: ROTATE TEXT FENCE TO HORIZONTAL ORIENTATION (ANGLE ZERO)
Description
Use to rotate all text in a fence to a horizontal orientation or to a active angle of zero.

FENCE > MANIPULATE >

NAME: ROTFNHOZ.BA
TITLE: ROTATE CONTENTS IN FENCE TO HORIZONTAL ORIENTATION
Description
Use to rotate contents of fence to a horizontal orientation. Command takes two points identified by the user and rotates that to a horizontal position to the view. User should place a fence prior to starting the command.

.

REFERENCE >

NAME: ATTACHREFDIR.BA
TITLE: ATTACH ALL DESIGN FILES IN A DIRECTORY FOLDER AS REFERENCES
Description
Allows attaching all design files in a directory folder as references. User must supply the folder name on a command line. This command may attach more files than needed but is useful because it is easier to detach the ones not needed that it is to attach them one at a time. This command has syntax rules that must be followed, in the key in field you must type the command as follows:

macro attachrefdir <directory_name>

<directory_name> must be a full path name and must end in a forward slash (\) to define that this is a directory name. It CANNOT contain spaces. Example: macro d:\projects\123456-123-12\

For ALL design files to be attached from this directory the design file names CANNOT contain spaces.

NAME: REFTOGGLE.BA
TITLE: TOGGLES THE REFERENCE DIALOG ON AND OFF
Description
Allows toggling the reference dialog on and off.

REFERENCE > MOVE >

NAME: REFMOVE.BA
TITLE: MOVE REFERENCE
Description
Activate the 'Reference Move" command from the menu.

NAME: REFMOVEALL.BA
TITLE: MOVE REFERENCE (ALL)
Description
Activate the 'Reference move All" command from the menu.

REFERENCE > ROTATE >

NAME: REFROTATEANGLE.BA
TITLE: ROTATE REFERENCE BY ANGLE
Description
Activate the 'Reference Rotate Angle" command from the menu.

NAME: REFROTATEANGLEALL.BA
TITLE: ROTATE REFERENCE BY ANGLE (ALL)
Description
Activate the 'Reference Rotate Angle All" command from the menu.

NAME: REFROTATEPT.BA
TITLE: ROTATE REFERENCE BY POINT
Description
Activate the 'Reference Rotate Point" command from the menu.

NAME: REFROTATEPTALL.BA
TITLE: ROTATE REFERENCE BY POINT (ALL)
Description
Activate the 'Reference Rotate Point All" command from the menu.

REFERENCE > SCALE >

NAME: REFSCALEABS.BA
TITLE: SCALE REFERENCE ABSOLUTE
Description
Activate the 'Reference Scale Absolute" command from the menu.

NAME: REFSCALEABSALL.BA
TITLE: SCALE REFERENCE ABSOLUTE (ALL)
Description
Activate the 'Reference Scale Absolute All" command from the menu.

NAME: REFSCALEFACTOR.BA
TITLE: SCALE REFERENCE FACTOR
Description
Activate the 'Reference Scale Factor" command from the menu.

NAME: REFSCALEFACTORALL.BA
TITLE: SCALE REFERENCE FACTOR (ALL)
Description
Activate the 'Reference Scale Factor All" command from the menu.

NAME: REFSCALEPT.BA
TITLE: SCALE REFERENCE POINTS
Description
Activate the 'Reference Scale Points" command from the menu.

NAME: REFSCALEPTALL.BA
TITLE: SCALE REFERENCE POINTS (ALL)
Description
Activate the 'Reference Scale Points All" command from the menu.f

SHEETS >

NAME: PROJREFS.BA
TITLE: ATTACH DEFAULT STANDARD NAMED DESIGN FILES AS REFERENCES
Description
Use to automatically reference design files that need to be attached before setting up a sheet.

The command only attaches design files that have standard names. If the file does not exist, then it will not be referenced. If the file is already attached it will not de-attach the original but will instead attach it again with a new logical name. The command displays a dialog box that has the standard default reference design file names displayed. Most are checked by default. The user can select the files they want to attach an then tag the OK button. The dialog is shown below:

NAME: SETSHSCL.BA
TITLE: SET SCALE BY SHEET CELL
Description
Used to set the x, y, and z active scale by identifying a cell.

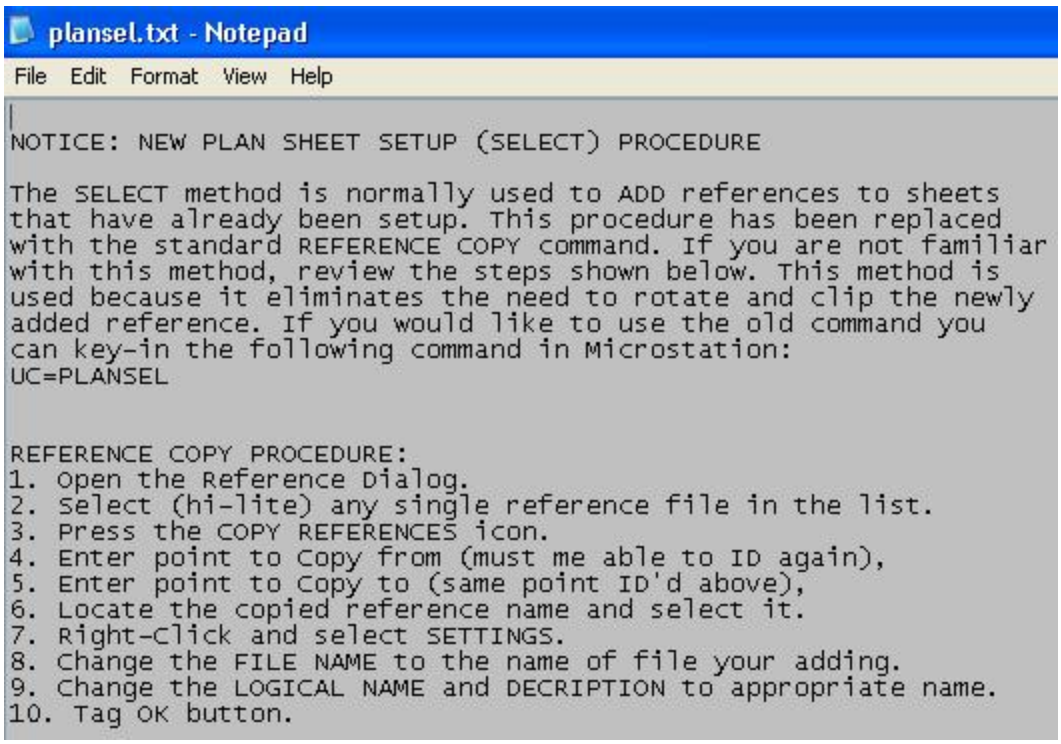
NAME: PLANSHEET.BA
TITLE: PLAN SHEET SETUP
Description
This command was designed to help user's setup a plan sheet in a design file. It works by clipping and rotating references to a horizontal orientation in the view. They then place a fence block that extends around the area (usually a border cell that has been placed previously as one of the references). All of the attached reference files are then clipped to prepare for rotation. The user then identifies the lower left and lower right corners of the border cell so the command can determine and then rotate the selected references so they are horizontal to the view. Using the active scale a fence is placed around the border cell and the selected reference files are re-clipped. Then a plan sheet cell (absh) is automatically placed at the correct location. The reference file display for the border is turned off automatically if the logical name is b, b1, b2, or b3; then the plan sheet is fitted in the view and the save settings command is issued. This command is most useful when first setting up the plan sheet. It will rotate and clip all attached references. So to add a new reference file use the command 'plansel.ba'.

NAME: PPROSHEET.BA
TITLE: PLAN / PROFILE SHEET SETUP
Description
This command was designed to help user's setup a plan profile sheet in a design file. It works by clipping and rotating references to a horizontal orientation in the view. They then place a fence block that extends around the area (usually a border cell that has been placed previously as one

of the references). All of the attached references are then clipped to prepare for rotation. The user then identifies the lower left and lower right corners of the border cell so the command can determine and then rotate the selected references so they are horizontal to the view. Using the active scale, a fence is placed around the border cell and the selected reference files are re-clipped. Then a plan profile sheet cell (ppro) is automatically placed at the correct location. The reference display for the border is turned off automatically if the logical name is b, b1, b2, or b3; then the plan sheet is fitted in the view and the save settings command is issued. This command is most useful when first setting up ALL the plan profile sheet. It will rotate and clip all attached reference files. So to add a new references use the command 'pprosel.ba'.

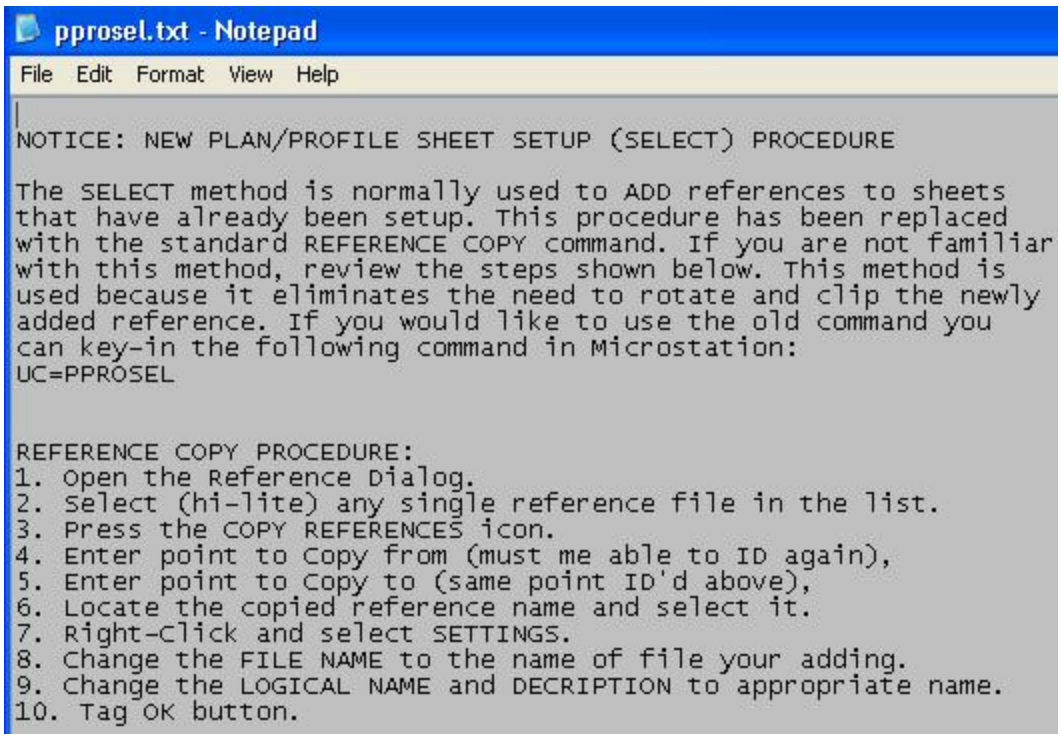
PLANSEL.UCM
TITLE: PLAN SHEET SETUP BY REFERENCE SELECTION
Description
This user command no longer runs when selected on the menu. It actually runs the command ("$ % notepad $(GR)plansel.txt"). Which displays informational text (plansel.txt-shown below) that explains the removal of this application and for the user to replace it with the "reference copy" commands. This user command can still be run with a manual key-in (uc= plansel) as explained below:

This command was designed to help user's add references to a plan sheet already in the design file. It works by clipping and rotating references to a horizontal orientation to the view. The newly attached references that were attached are selected in the dialog box. They then place a fence block that extends around the area (usually another border cell that has been placed previously attached as a reference). The references are then clipped to prepare for rotation. The user then identifies the lower left and lower right corners of the border cell so the command can determine and then rotate the selected reference files so they are horizontal to the view. Then by using the active scale, a fence is placed in the border cell and the selected reference files are re-clipped. The border reference file display has to be turned of manually.



PPROSEL.UCM
TITLE: PLAN/PROFILE SHEET SETUP BY REFERENCE SELECTION
Description
This user command no longer runs when selected on the menu. It actually runs the command ("$ % notepad $(GR)pprosel.txt"). Which displays informational text (pprosel.txt-shown below) that explains the removal of this application and for the user to replace it with the "reference copy" commands. This user command can still be run with a manual key-in (uc= plansel) as explained below:

This command was designed to help user's add references to a plan/profile sheet already in the design file. It works by clipping and rotating references to a horizontal orientation to the view. The newly attached references that were attached are selected in the dialog box. They then place a fence block that extends around the area (usually another border cell that has been placed previously attached as a reference). The references are then clipped to prepare for rotation. The user then identifies the lower left and lower right corners of the border cell so the command can determine and then rotate the selected reference files so they are horizontal to the view. Then by using the active scale, a fence is placed in the border cell and the selected reference files are re-clipped. The border reference file display has to be turned of manually.



NAME: GPKSHEETBORDERS.BA
TITLE: DRAW SHEET BORDER CELLS ALONG A GEOPAK ALIGNMENT
CALLS: ACBOOK.MA, PLACE_BORDER.X
Description
Call the Geopak acbook mdl application and the 3PC application "place_borders.x" to place the sheet border plan or plan/profile cell along a geopak alignment.

SHEETS > TEXT >

NAME: PJNOTX.BA
TITLE: ATTACH SHEET PROJECT NUMBERS REFERENCES
Description
On each sheet cell there are enter data fields that can be used to enter text information for project numbers, county, etc.. They are helpful because the pre-set the text parameters for you. The down-side is that they are part of the cell and have to be modified one at at time. This command can be used as an alternative to entering text in data fields on each sheet.

The procedure requires using references. The references will contain your project numbers, which will show up on each sheet. This will give you the ability to enter and modify the project number in only one file, but still have the data show up on all the plan/profile sheets.

Prerequisites:
Copy either PJNOPLAN.DGN or PJNOPPRO.DGN to your project. Enter the file and enter the project number data fields. Use this command to attach one of the above as a reference file on the sheet. The user command works by looking at a saved view in one of the design files above (sv=pjtx). The view is used as a reference attachment. The user must enter the scale of the sheet and the attachment point must be identified. Use the lower-left corner of the inner-most plan border as the attach point.

NAME: TBHTX.BA
TITLE: PLACE TEXT FOR SHEET TITLE BLOCK HEADINGS
Description
Sets the text parameters to place text for sheet title block headings. The current active scale determines the text size. The 'place text' command is issued to allow the user to being placing text.

NAME: TBDTX.BA
TITLE: PLACE TEXT FOR SHEET TITLE BLOCK DESCRIPTIONS
Description
Sets the text parameters to place text for sheet title block descriptions. The current active scale determines the text size. The Place text command is issued to allow the user to begin placing text.

NAME: PNSPTX.BA
TITLE: PLACE TEXT FOR PROJECT NUMBER STAMP (PLAN/PROFILE)
Description
Sets the parameters to place text in project numbers stamps located in the upper right corner of plan/profile sheets. The current active scale determines the text size.

NAME: PNCTX.BA
TITLE: PLACE TEXT FOR PROJECT NUMBERS AND COUNTY (PLAN/PROFILE)
Description
Sets the text parameters to place text for project numbers and counties on plan/profile sheets. This can be in the title block or on the bottom right corner of sheet. The current active scale determines the text size.

PLOTTING >

NAME: PLACEPLOTGUIDE.UCM
TITLE: PLACE A BLOCK THAT IS BASED ON PLOTTING SCALE AND SIZE
Description
Use to place a element block based on a plotting scale and a size entered in inches. For example, if you needed a block that would cover an area at a scale of 1"=200' on a 11"x17" paper size you could use this command to do this. The user enters a starting data point to define the lower left corner of the block to be placed, then enter the plots scale (i.e. 200) and

then an x distance (i.e. 17) and a y distance (i.e. 11), both in a value of inches. The result would be a block that has a size that would plot the data at 1"=200' scale on the size paper indicated. The block is placed on the proper standard level structure and is defined as a "construction" element. This allows you to turn on/off the element by toggling the construction view attribute.

MENUS >

NAME: LCALC.BA
CALLS: CALC.MA
TITLE: LOADS THE CALCULATOR APPLICATION
Description
Calls the 'calculator' application. Typing "mdl load calc" is the only way to activate the calculator. This user command runs this key-in when selecting from the menu.

NAME: LAUTOTURN.BA
TITLE: COMMAND TO LOAD THE AUTOTURN APPLICATION
CALLS: ATXM.MA (Autoturn MDL application)
Description
Command used to make it easy to load the Autoturn application from the DZine Menu.

Note: The Autoturn Software must be install on you computer using Roadway Designs standard procedures before this command will work. The command is also dependent on a valid version of AutoTurn being installed. Contact CADD support for details.

NAME: DIAG6.BA
TITLE: AREA PATTERN (DIAGONALS) [AP=LINE] [PA=30]
Description
Used to pattern a closed shape or fence shape. The pattern angle, pattern delta, and pattern scale are set automatically.

NAME: DIAG4.BA
TITLE: AREA PATTERN (DIAGONALS [AP=LINE] [PA=45]
Description
Used to pattern a closed shape or fence shape. The pattern angle, pattern delta, and pattern scale are set automatically.

NAME: DIAG2.BA
TITLE: AREA PATTERN (DIAGONALS) [AP=LINE] [PA=60]
Description
Used to pattern a closed shape or fence shape. The pattern angle, pattern delta, and pattern scale are set automatically.

NAME: DIAG1.BA
TITLE: AREA PATTERN (DIAGONALS) [AP=LINE] [PA=20]

Description
Used to pattern a closed shape or fence shape. The pattern angle, pattern delta, and pattern scale are set automatically.

NAME: DIAG3.BA
TITLE: AREA PATTERN (DIAGONALS) [AP=LINE] [PA=130]
Description
Used to pattern a closed shape or fence shape. The pattern angle, pattern delta, and pattern scale are set automatically.

NAME: DIAG5.BA
TITLE: AREA PATTERN (DIAGONALS) [AP=LINE] [PA=150]
Description
Used to pattern a closed shape or fence shape. The pattern angle, pattern delta, and pattern scale are set automatically.

NAME: HORZAP.BA
TITLE: AREA PATTERN (HORIZONTAL) [AP=LINE] [PA=0]
Description
Used to pattern a closed shape or fence shape. The pattern angle, pattern delta, and pattern scale are set automatically.

NAME: VERTAP.BA
TITLE: AREA PATTERN (VERTICAL) [AP=LINE] [PA=90]
Description
Use to pattern a closed area or fence shape. The active pattern angle, delta and scale are set automatically.

NAME: XHAT1.BA
TITLE: AREA PATTERN (CROSS-HATCH) [AP=XHATCH]
Description
Use to pattern a closed shape or fence shape. The pattern angle, delta and scale are set automatically.

NAME: XHAT2.BA
TITLE: AREA PATTERN (CROSS-HATCH)[AP=XHATCH] [PS= 0.5 X AS]
Description
Use to pattern a closed shape or fence shape. The pattern angle, delta and scale are set automatically.

NAME: XHAT3.BA
TITLE: AREA PATTERN (CROSS-HATCH) [AP=Z] [PA=90]

Description
Use to pattern a closed shape or fence shape. The pattern angle, delta and scale are set automatically.

NAME: XHAT4.BA
TITLE: AREA PATTERN (CROSS-HATCH) [AP=Z]
Description
Use to pattern a closed shape or fence shape. The pattern angle, delta and scale are set automatically.

NAME: CONCAP.BA
TITLE: AREA PATTERN (CONCRETE)
Description
Used to pattern with (ap=conc) a closed area. The user must define the area with a shape or fence. Active pattern, pattern angle, pattern delta, and pattern scale are set automatically.

NAME: RRAPAP.BA
TITLE: AREA PATTERN (RIPRAP) [AP=RIPRAP]
Description
Use to pattern a closed shape or fence area with the riprap cell. The pattern angle, delta, and scale are set automatically.

NAME: WET.BA
TITLE: AREA PATTERN FOR WETLANDS
Description
Set the area pattern parameters to allow patterning it with wetland symbols.

NAME: DOTAP.BA
TITLE: AREA PATTERN FOR DOTS 1
Description
Set the area pattern parameters to allow patterning it with wetland symbols.

NAME: DOTAP2.BA
TITLE: AREA PATTERN FOR DOTS 2
Description
Set the area pattern parameters to allow patterning it with wetland symbols.

NAME: DOTAP3.BA
TITLE: AREA PATTERN FOR DOTS 3
Description
Set the area pattern parameters to allow patterning it with wetland symbols.

NAME: EARTH1.BA
TITLE: AREA PATTERN FOR EARTH (GROUND) 1
Description
Set the area pattern parameters to allow patterning it earth (ground) symbols.

NAME: EARTH2.BA
TITLE: AREA PATTERN FOR EARTH (GROUND) 2
Description
Set the area pattern parameters to allow patterning it earth (ground) symbols.

NAME: GRAVEL.BA
TITLE: AREA PATTERN (GRAVEL) [AP=GRAVEL] [PA=0]
Description
Used to pattern a closed element or fence shape . The pattern angle, pattern delta, and pattern scale are set automatically.

NAME: GRADE.BA
TITLE: AREA PATTERN (GRADING / GROUND) [AP=GRADE] [PA=0]
Description
Used to pattern a closed element or fence shape . The pattern angle, pattern delta, and pattern scale are set automatically.

NAME: RANDX.BA
TITLE: AREA PATTERN (RANDOM X'S - CROSSHATCH) [AP=RANDX] [PA=0]
Description
Used to pattern a closed element or fence shape . The pattern angle, pattern delta, and pattern scale are set automatically.

NAME: DASHP.BA
TITLE: AREA PATTERN (DASHING PATTERN) [AP=DASHP] [PA=0]
Description
Used to pattern a closed element or fence shape . The pattern angle, pattern delta, and pattern scale are set automatically.

NAME: GRASSY.BA
TITLE: AREA PATTERN (GRASSY AREA) [AP=GRASSY] [PA=0]
Description
Used to pattern a closed element or fence shape . The pattern angle, pattern delta, and pattern scale are set automatically.

NAME: WOOD1.BA
TITLE: AREA PATTERN (WOOD GRAIN 1) [AP=WOOD1] [PA=0]
Description

Used to pattern a closed element or fence shape . The pattern angle, pattern delta, and pattern scale are set automatically.

NAME: WOOD2.BA
TITLE: AREA PATTERN (WOOD GRAIN 2) [AP=WOOD2] [PA=0]
Description
Used to pattern a closed element or fence shape . The pattern angle, pattern delta, and pattern scale are set automatically.

NAME: TILE1.BA
TITLE: AREA PATTERN (TILES 1) [AP=TILE1] [PA=0]
Description
Used to pattern a closed element or fence shape . The pattern angle, pattern delta, and pattern scale are set automatically.

NAME: TILE2.BA
TITLE: AREA PATTERN (TILES 2) [AP=TILE2] [PA=0]
Description
Used to pattern a closed element or fence shape . The pattern angle, pattern delta, and pattern scale are set automatically.

NAME: TILE3.BA
TITLE: AREA PATTERN (TILES 3) [AP=TILE3] [PA=0]
Description
Used to pattern a closed element or fence shape . The pattern angle, pattern delta, and pattern scale are set automatically.

NAME: TILE4.BA
TITLE: AREA PATTERN (TILES 4) [AP=TILE4] [PA=0]
Description
Used to pattern a closed element or fence shape . The pattern angle, pattern delta, and pattern scale are set automatically.

NAME: TILE5.BA
TITLE: AREA PATTERN (TILES 5) [AP=TILE5] [PA=0]
Description
Used to pattern a closed element or fence shape . The pattern angle, pattern delta, and pattern scale are set automatically.

NAME: TILE6.BA
TITLE: AREA PATTERN (TILES 6) [AP=TILE6] [PA=0]
Description
Used to pattern a closed element or fence shape . The pattern angle, pattern delta, and pattern scale are set automatically.

NAME: TILE7.BA
TITLE: AREA PATTERN (TILES 7) [AP=TILE7] [PA=0]
Description
Used to pattern a closed element or fence shape . The pattern angle, pattern delta, and pattern scale are set automatically.

NAME: TILE8.BA
TITLE: AREA PATTERN (TILES 8) [AP=TILE8] [PA=0]
Description
Used to pattern a closed element or fence shape . The pattern angle, pattern delta, and pattern scale are set automatically.

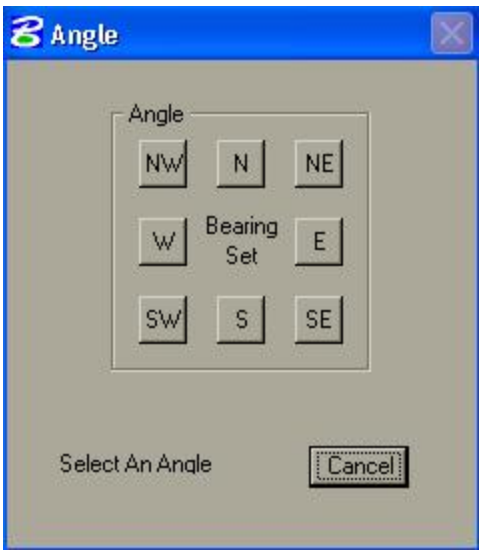
ANGLES >

NAME: AAFROMELEM.BA
TITLE: SET ACTIVE ANGLE FROM IDENTIFIED ELEMENTS
Description
This command allows a user to set the active angle by identifying certain elements. Valid elements are; line, linestring, shape, curve, bslpinepole, pointstring, arc, ellipse, complexstring, complex shape, and multiline. Closed elements have the same start and end points, thus you cannot set an active angle from those elements.

NAME: DMS.UCM
TITLE: SET ACTIVE ANGLE BY BEARING ANGLE KEY IN
Description
This command allows a user the ability to key in an angle in degrees, minutes, seconds, and quadrant (bearing mode) and the command will convert that to an active angle setting in microstation.

NAME: 2DELMANG.BAS
TITLE: SET ACTIVE ANGLE FROM ROTATION MATRIX OF CERTAIN ELEMENTS
Description
This command allows a user to set the active angle by identifying certain types of elements. Valid elements are; text, text nodes, ellipses, tags, cells, shared cells and arcs.

NAME: ANGLEB.BA
TITLE: DIALOG TO SET ACTIVE ANGLE BY BEARING
Description
This command activates a dialog box that can be used to set you active angle by using bearings, it is shown below:



NAME: CONVENTIONALREADOUT.BA
TITLE: CHANGE DESIGN FILE SETTING FOR ANGLE READOUT TO CONVENTIONAL MODE
NOT VALID IN MICROSTATION V8I OR ABOVE
Description
This command will instantly set the design file settings for angle readout to Conventional Mode. It does it without having to open up the normal dialogs boxes and make settings.

NAME: BEARINGREADOUT.BA
TITLE: CHANGE DESIGN FILE SETTING FOR ANGLE READOUT TO BEARING MODE
NOT VALID IN MICROSTATION V8I OR ABOVE
Description
This command will instantly set the design file settings for angle readout to Bearing Mode. It does it without having to open up the normal dialogs boxes and make settings. NOTE: When using this mode you should return it to conventional mode before submitting to other users.

NAME: AZIMUTHREADOUT.BA
TITLE: CHANGE DESIGN FILE SETTING FOR ANGLE READOUT TO AZIMUTH MODE
NOT VALID IN MICROSTATION V8I OR ABOVE
Description
This command will instantly set the design file settings for angle readout to Azimuth Mode. It does it without having to open up the normal dialogs boxes and make settings. NOTE: When using this mode you should return it to conventional mode before submitting to other users.

VIEWS >

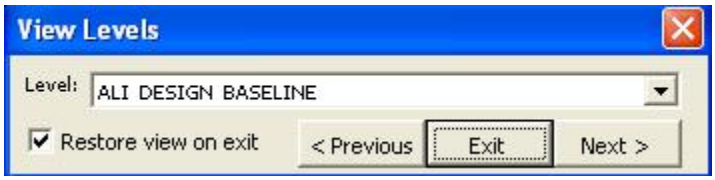
NAME: ROTVIEW.BA
TITLE: ROTATE VIEW BY THREE POINTS
Description

This command allows you to rotate a view without requiring your to define the X or Y axes. It allows you to align any two points in a view to any orientation.

NAME: BGWHITE.BA
TITLE: SETS BACKGROUND PREFERENCE COLOR TO WHITE
Description
This command allows you set the background preference color to white. Its accomplishes the same thing as going to the Workspace > Preferences > View Options and changing the background to white, but with far less steps.

NAME: BGBLACK.BA
TITLE: SETS BACKGROUND PREFERENCE COLOR TO BLACK
Description
This command allows you set the background preference color to blace. Its accomplishes the same thing as going to the Workspace > Preferences > View Options and changing the background to black, but with far less steps.

NAME: VIEWLEVEL.MVBA
TITLE: VIEW USED LEVELS IN DESIGN FILE IN A SLIDE-SHOW MANNER
Description
VBA application that allows the user to display used levels individually in a slide-show type manner. The user may click on the Next and Previous buttons to change the level display, or pick one from the Level drop-down list. The dialog is non-modal so the user may perform other commands while the macro is active. If the "Restore view on exit" box is checked when the macro is exited the level display is returned to its original state. Press the "Exit" button to close the application.



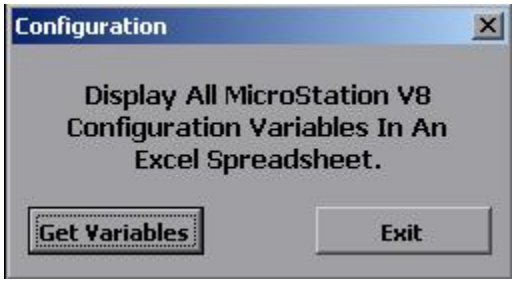
NAME: ICONCONTRASTON.BA
TITLE: INCREASES THE CONTRAST OF ICON EDGES
Description
This command activates the Workspace Preference of turning ON the "Increase Contrast of Icon Edges" option. Doing so may improve the ability of see Microstation icons icons.

NAME: ICONCONTRASTOFF.BA
TITLE: TURN OFF THE OPTION THAT INCREASES THE CONTRAST OF ICON EDGES
Description
This command modifies the Workspace Preference of the "Increase Contrast of Icon Edges" option by turning it off.

FILE UTILITES >

NAME: DGNRESET.BA
TITLE: RESET SETTINGS IN A DESIGN FILE TO MATCH RWD STANDARDS
Description
This macros is designed to reset many of the settings in the design file to those that match valid Roadway Design standards. It contains a section that reset many command design file settings, such as; angles, colors, locks, text line length, fence locks, etc. The view settings section resets items such as weight to on, data fields off, text nodes off, level symbology off, etc. A reference section turns on snap and locate. All the changes are saved with the "filedesign" command.

NAME: CONFIG.MVBA
TITLE: CREATE A EXCEL SPREADSHEET THAT CONTAINS ALL MICROSTATION VARIABLES
Description
This Microstation VBA can create an Excel Spreadsheet file that shows all the Microstation environment variables currently being used in your design file. This application is auto-loaded via the workspace. If you want to manually activate this command, you can key in: vba run getVariables. It will prompt with a dialog box (shown below) to either create the Excel file or Exit. Be patient when you create the file, it may take a minute. The excel file displayed is not saved unless you use Excel to save it.



NAME: BACKUPTBAK.BA
TITLE: CREATE A BACKUP COPY OF A DESIGN FILE (.BAK)
Description
This macros will copy or backup the current design file and create a file with the same name as the design file with a .bak extension. It uses the standard "backup" command from Microstation. This command will check for the environment variable PW_ACTIVE = 1. If set to 1 the command will issue a message that the command is not available in ProjectWise.

NAME: RWDNEWDGN.BA
TITLE: ACTIVATES A ROADWAY DESIGN APPLICATION (NEWDGNS.EXE) THAT IS USED TO CREATE PROJECT DESIGN FILES
Description
This macros was designed to activate the application called (newdgns.exe), which is used to create project design files using standard filenames. This command will check for the

environment variable PW_ACTIVE = 1. If set to 1 the command will issue a message that the command is not available in ProjectWise.

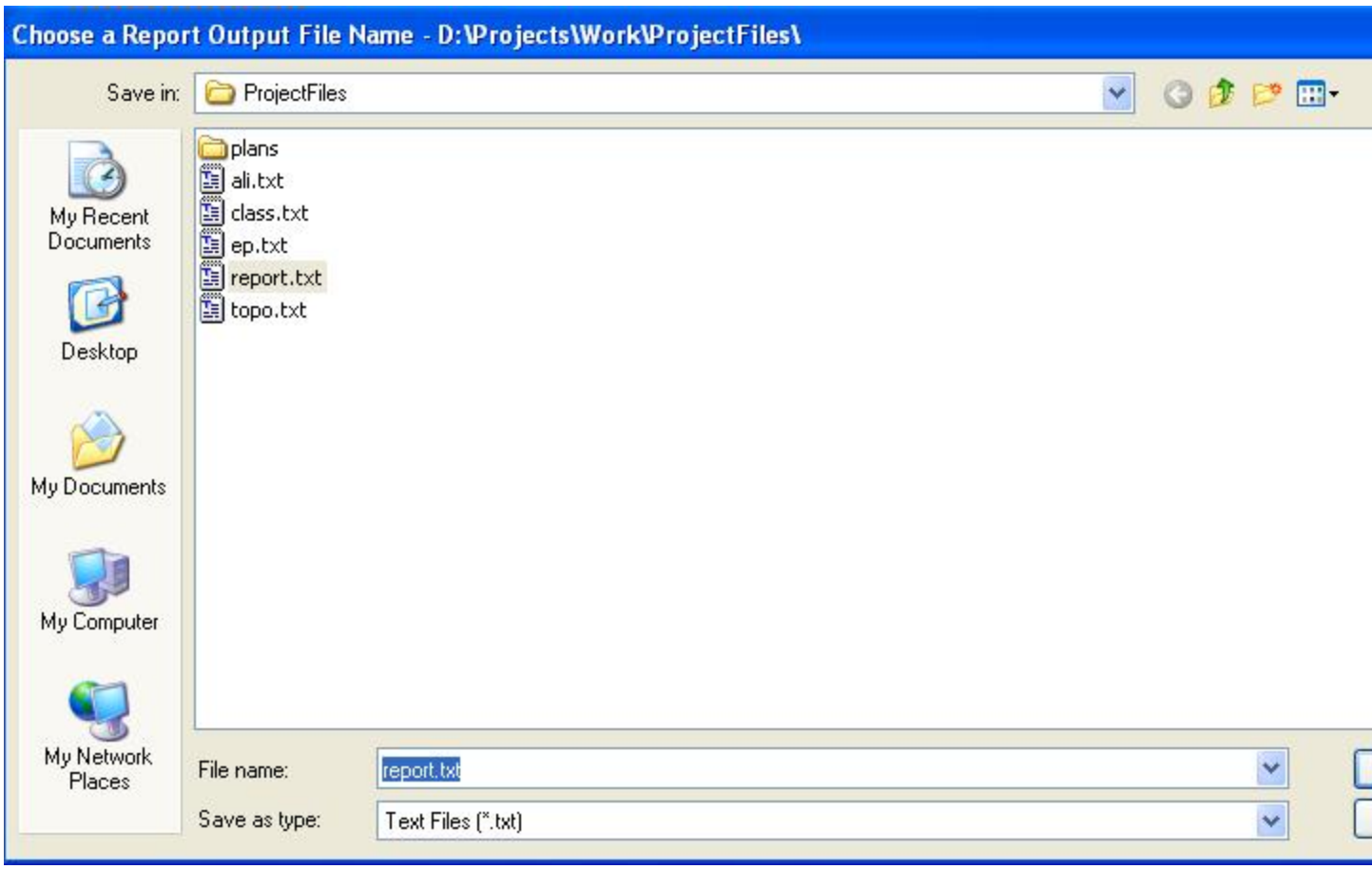
NAME: GETVAREXCEL.BA
TITLE: ACTIVATES A VBA APPLICATION THAT CAN RETRIEVE ALL THE MICROSTATION ENVIRONMENT VARIABLES AND PLACE THEM IN AN EXCEL FILE.
Description
This macros runs a vba application that is loaded in the Roadway Workspace (config.mvba). The purpose of the VBA is to generate an Excel file that contains a list of all of Microstation's environment variables. This command will check for the environment variable PW_ACTIVE = 1. If set to 1 the command will issue a message that the command is not available in ProjectWise.

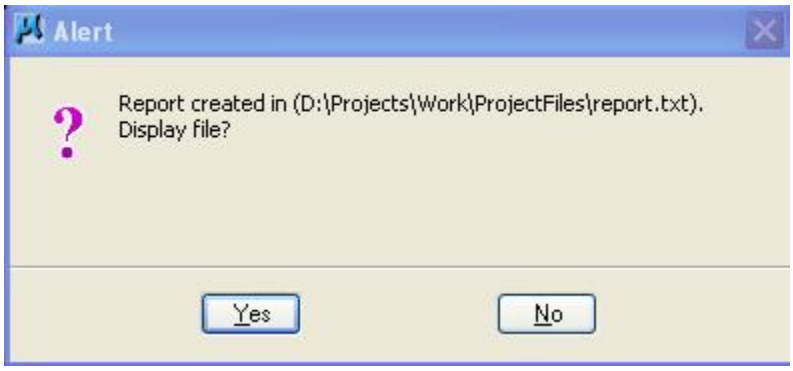
NAME: PROJCONF.BA
TITLE: ACTIVATES A PROJECT LEVEL CONFIGURATION VARIABLES DIALOG BOX
Description
This macros open the project level configuration file (.pcf) in a dialog box. This command will check for the environment variable PW_ACTIVE = 1. If set to 1 the command will issue a message that the command is not available in ProjectWise.

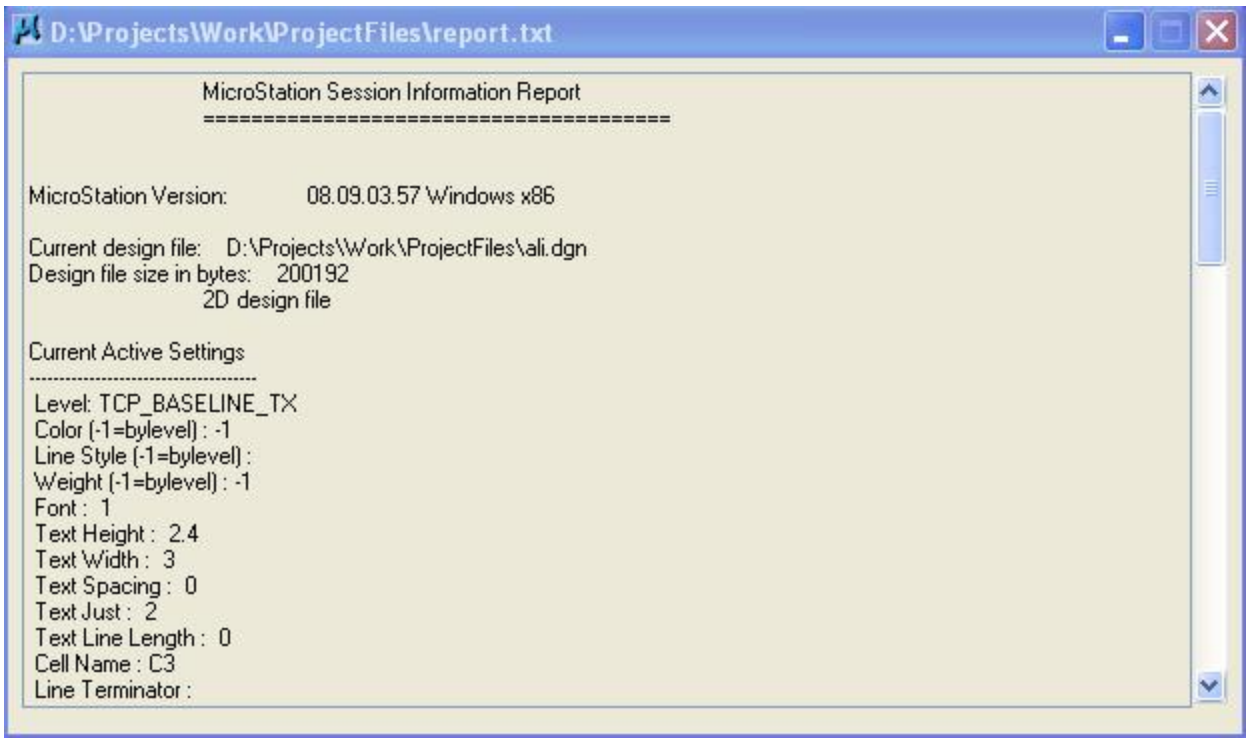
NAME: USERCONFTXT.BA
TITLE: ACTIVATES A USER LEVEL CONFIGURATION VARIABLES IN A TEXT EDITOR (i.e. NOTEPAD)
Description
This macros open the User Level Configuration file in a text editor instead of a dialog box for editing purposes. This command will check for the environment variable PW_ACTIVE = 1. If set to 1 the command will issue a message that the command is not available in ProjectWise.

NAME: DELGPKRSC.BA
TITLE: ACTIVATES A ROADWAY APPLICATION (DELGPKRSC.EXE) THAT REMOVES CORRUPTED GEOPAK RESOURCE FILES
Description
This macros activates a Roadway application called (delgpkrsc.exe). This application is design to locate the folder where Geopak resource files (.rsc) are located and then delete them. This makes it easy for the user to clean out corrupted resource files. This command will check for the environment variable PW_ACTIVE = 1. If set to 1 the command will issue a message that the command is not available in ProjectWise.

NAME: REPORTDGN.BA
TITLE: CREATE A SETTING REPORT OF A DESIGN FILE
Description
Use this to create a report (.txt) file containing information about your current design file. It will create the report in the same directory as you design file and with the name "report.txt" unless you change them. The file will overwrite a text file with the same name unless you cancel the command. You have the option to display the report file in the design file by answering the dialog. The three dialogs are shown below:


Choose a Report Output File Name - D:\Projects\Work\ProjectFiles\
Save in:
ProjectFiles
plans
ali.txt
class.txt
ep.txt
report.txt
topo.txt
My Recent Documents
Desktop
My Documents
My Computer
My Network Places
File name:
report.txt
Save as type:
Text Files (*.txt)


Alert
Report created in (D:\Projects\Work\ProjectFiles\report.txt).
Display file?
Yes
No



OTHER

NAME: MEASLO.BA
TITLE: MEASURE SLOPE
Description
Calculates the slope between two identified points and displays the output in percentage and ratio in the prompt field. This can be useful on cross sections and typical sections.

NAME: GPKCURVEDATA.BA
TITLE: GEOPAK 3PC - DISPLAY CURVE DATA OF IDENTIFIED ARC ELEMENT IN DGN
CALLS: ACBOOK.MA, COGO-CURVE-DATA.X
Description
This command calls the Geopak 3PC application to display curve data of a selected arc element in a design file. Requires uses to create a selection set of the arc element that you wish to get the data. Geopak must be activated to use.

NAME: FITVIALL
TITLE: FITS ALL GRAPHICS TO ALL OPEN VIEWS
Description
Command can fit all open views. View must be open for command to process the fit. The

command is currently being using on the RWD MAIN menu. If a user wishes to fit only one view they must use the view tools or other means.

NAME: RESMSG.UCM
TITLE: RESTORE MICROSTATION COMMAND WINDOW MESSAGES
Description
Used to restore the message fields on the Microstation command window. Since messages can be inhibited by commands, etc. They have to be restored in case of abnormal termination of commands that inhibit messages. Usually this command is only needed when users are creating and testing user commands.

NAME: RESMSG.BA
TITLE: RESTORE MICROSTATION COMMAND WINDOW MESSAGES
Description
Used to restore the message fields on the Microstation command window. Since messages can be inhibited by commands, etc. They have to be restored in case of abnormal termination of commands that inhibit messages. Usually this command is only needed when users are creating and testing user commands.

NAME: ZOOM1.BA
CALLS: NONE
TITLE: SIMULATE THE "ZOOM 1" COMMAND
Description
Simulates the ZOOM 1 command, which allows to do a continuous window center.

NAME: DIALOGDEBUGON.BA
TITLE: ACTIVATE THE DIALOG DEBUGGER AND TURN ON MESSAGES
Description
This command can be helpful to a programmer. The command will turn on the debugger with with command "dmsg dialogdebug on" which will display a message with the dialog ID numbers as they are loading in Microstation. This info can then be used to turn on and off dialog boxes. For example: dmsg closedialog -7 ref

NAME: CLEAR.BA
TITLE: CLEAR INPUT
Description
This macro is designed to clear the current command by issuing a "null" command and turn on key in parsing. It also turns on "echo" if it off. The purpose of this command make sure the system is cleared to allow user to do the next input. It is currently assigned to Roadway Function Key menu F4.

NAME: WINAREA.BA
TITLE: ISSUE A BASIC "WINDOW AREA" COMMAND
Description

The window area command on the RWDMAIN menu does not function properly is parse keyin is turned off. The macro is issued to turn it back on so the window area command will be successful each time you press it on the menu.

NAME: GPKDRIVEU1.BA
CALLS: PLAN_DRIVES_URBAN1.X
TITLE: LOAD GEOPAK 3PC CRITERIA APPLICATION TO DRAW PROPOSED URBAN DRIVES -STEP 1
Description
Loads the Geopak 3PC criteria application that is used to draw proposed urban driveways. Step 1 of a 2 step process.

NAME: GPKDRIVER2.BA
CALLS: PLAN_DRIVES_RURAL2.X
TITLE: LOAD GEOPAK 3PC CRITERIA APPLICATION TO DRAW PROPOSED RURAL DRIVES -STEP 2
Description
Loads the Geopak 3PC criteria application that is used to draw proposed rural driveways. Step 2 of a 2 step process.

NAME: GPKDRIVER1.BA
CALLS: PLAN_DRIVES_RURAL1.X
TITLE: LOAD GEOPAK 3PC CRITERIA APPLICATION TO DRAW PROPOSED RURAL DRIVES -STEP 1
Description
Loads the Geopak 3PC criteria application that is used to draw proposed rural driveways. Step 1 of a 2 step process.

NAME: GPKDRIVEU2.BA
CALLS: PLAN_DRIVES_URBAN2.X
TITLE: LOAD GEOPAK 3PC CRITERIA APPLICATION TO DRAW PROPOSED URBAN DRIVES -STEP 2
Description
Loads the Geopak 3PC criteria application that is used to draw proposed urban driveways. Step 2 of a 2 step process.

SUB ROUTINE COMMANDS

NAME: ASTEST.UCM
CALLED BY: MANY USER COMMANDS
TITLE: SET PARAMETERS ASSOCIATED WITH ACTIVE SCALE
Description
Reads the current active scale and makes other settings that relate to it. These values are used for scaling text, cells, patterns, and terminators in design files. The following are set based on the active scale: pattern scale (ps=), terminator scale (ts=), stream delta (sd=), and stream tolerance (st=). This command is called by most of the user commands that place cells,

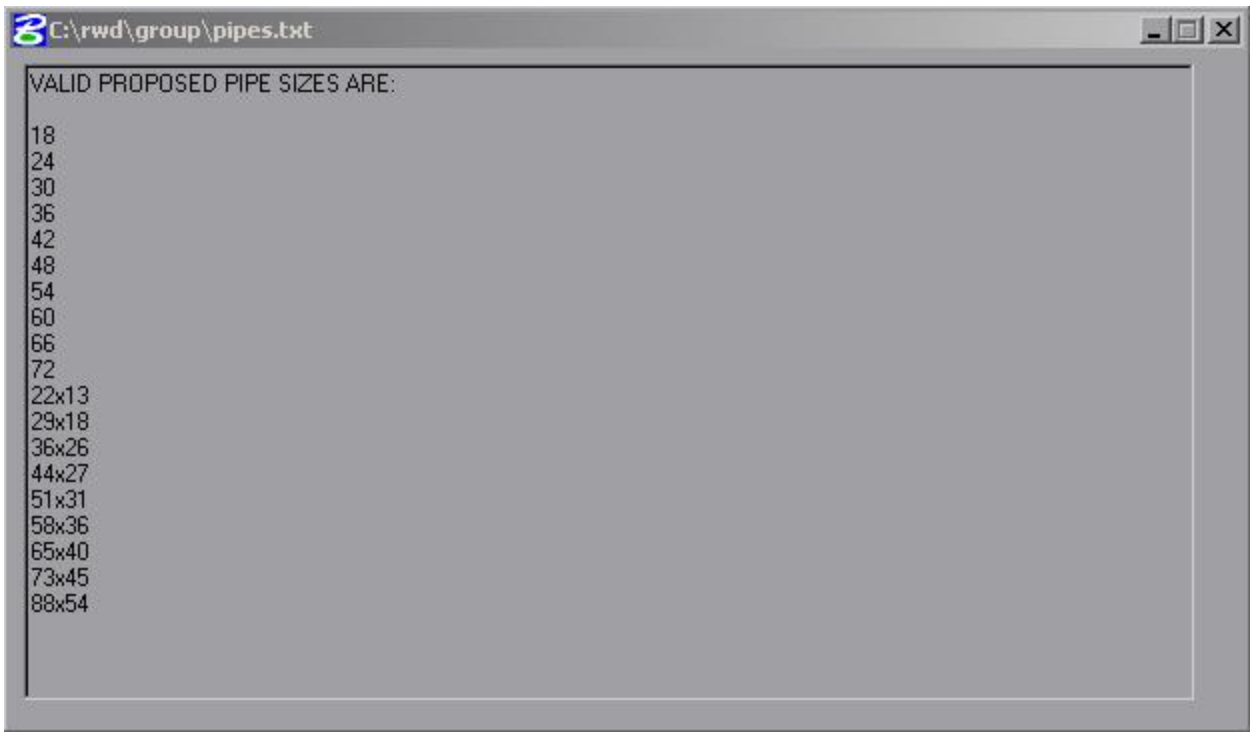
terminators, and patterns. If the current active scale is not set to a normal scale it will beep and prompt you to enter a new scale or reset to continue.

NAME: MNU.UCM
CALLED BY: MANY USER COMMANDS
TITLE: MESSAGES FOR MENU SELECTION DURING USER COMMANDS
Description
This sub-routine is used when users select a command selection from a menu. It is called to generate standard messages to the user when he uses another command while in a user command. Such as, window area, fit view, zoom in, zoom out, etc.

NAME: TYPTEST.UCM
CALLED BY: MANY TYPICAL SECTION USER COMMANDS
TITLE: SET PARAMETERS ASSOCIATED WITH ACTIVE SCALE
Description
Reads the current active scale and makes other settings that relate to it. These values are used for scaling text, cells, patterns, and terminators in design files. The following are set based on the active scale: pattern scale (ps=), terminator scale (ts=), stream delta (sd=), and stream tolerance (st=). This command is called by most of the user commands that place cells, terminators, and patterns. If the current active scale is not set to a normal scale it will beep and prompt you to enter a new scale or reset to continue.

NAME: XPIPESMSG.BA
CALLED BY: XPIPES.UCM
CALLS: XPIPES.TXT
TITLE: DISPLAYS A TEXT FILE ON SCREEN SHOWING VALID EXISTING PIPE SIZES
Description
This sub-routine macro is run is user presses a ? when placing existing pipes. Its purpose is to display valid pipe sizes to enter for the command. A text file (xpipes.txt) contains the pipe sizes, the command displays it on a screen dialog using the key in DR=<text file name>. The macro will close the dialog automatically after 7 seconds. Below is and example of the displayed text file:

NAME: PIPESMSG.BA
CALLED BY: PIPES.UCM, PIPESALT.UCM
CALLS: PIPES.TXT
TITLE: DISPLAYS A TEXT FILE ON SCREEN SHOWING VALID PROPOSED PIPE SIZES
Description
This sub-routine macro is run is user presses a ? when placing proposed pipes. Its purpose is to display valid pipe sizes to enter for the command. A text file (pipes.txt) contains the pipe sizes, the command displays it on a screen dialog using the key in DR="<text file name>". The macro will close the dialog automatically after 7 seconds. Below is and example of the displayed text file:



NAME: CGLSS.BA
TITLE: SUB-PROGRAM CALLED BY PCANDG.MVBA TO SET LINE STYLE SCALE
Description
Called by PCANDG.MVBA to automatically set the line style scale for placing proposed curb and gutter types.

NAME: A2L.BA
TITLE: SUB-COMMAND TO PLACE 2 POINT LINE WITH ARROWHEAD (ARROW TO LINE)
Description
This macro is called by other commands to assist in placing a line with and arrowhead. Other command will set active levels and symbology and then this macro is called to place the elements. This command only places a single line leader with one arrowhead. This command begins with an arrowhead and follows with a line. You can use the + and - keys on the keyboard to increase or decrease the size of the arrowhead. The size change occurs in 5% increments.

NAME: L2A.BA
TITLE: SUB-COMMAND TO PLACE 2 POINT LINE WITH ARROWHEAD (LINE TO ARROW)
Description
This macro is called by other commands to assist in placing a line with and arrowhead. Other command will set active levels and symbology and then this macro is called to place the elements. This command only places a single line leader with one arrowhead. This command begins with a line and ends with an arrowhead. You can use the + and - keys on the keyboard to increase or decrease the size of the arrowhead. The size change occur in 5% increments.

NAME: SCALEWRITE.BA
TITLE: SUB-COMMAND READ THE ACTIVE SCALE AND WRITE IT TO A TEXT FILE
Description
This macro is called by a Geopak 3PC application that helps place a stamp on an existing sheet. It reads the active scale set in the design file and writes it to a text file. The text file is hard-coded to write the file ...\rwddata\input\activescale.txt